

Manufacturers Record

Exponent of America



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Baltimore, Md.,
DECEMBER 11, 1919

ARE YOU WORKING IN THIS SPIRIT?

The world is short of food, and millions will starve; it is short of fuel, and millions will freeze; it is short of many products, and the shortage forces prices to ever higher figures.

The world is short on work, and millions are idle when every idle hour increases starvation, increases the number who will freeze to death, will add to the cost of living and endanger all governments and all civilization.

Willing idleness today, by rich or poor, is criminality.

Workers are needed as never before, and the work shirker is a slacker, a criminal, a co-operator with the forces of starvation and freezing.

Every man who fails to work to his utmost in this crucial hour of world agony and threatened revolution is helping thereby to starve and freeze millions of helpless women and children, helping by his inaction when action is needed to prevent chaos from engulfing the world.

Before the judgment seat of a just God every soul shall some day stand and the light of eternity shall illuminate the record of everyone. On that day shall the women and babies who died for lack of food and fuel point an accusing finger at you and say, "Had you worked and inspired others to work, we would not have died in hunger and cold?"

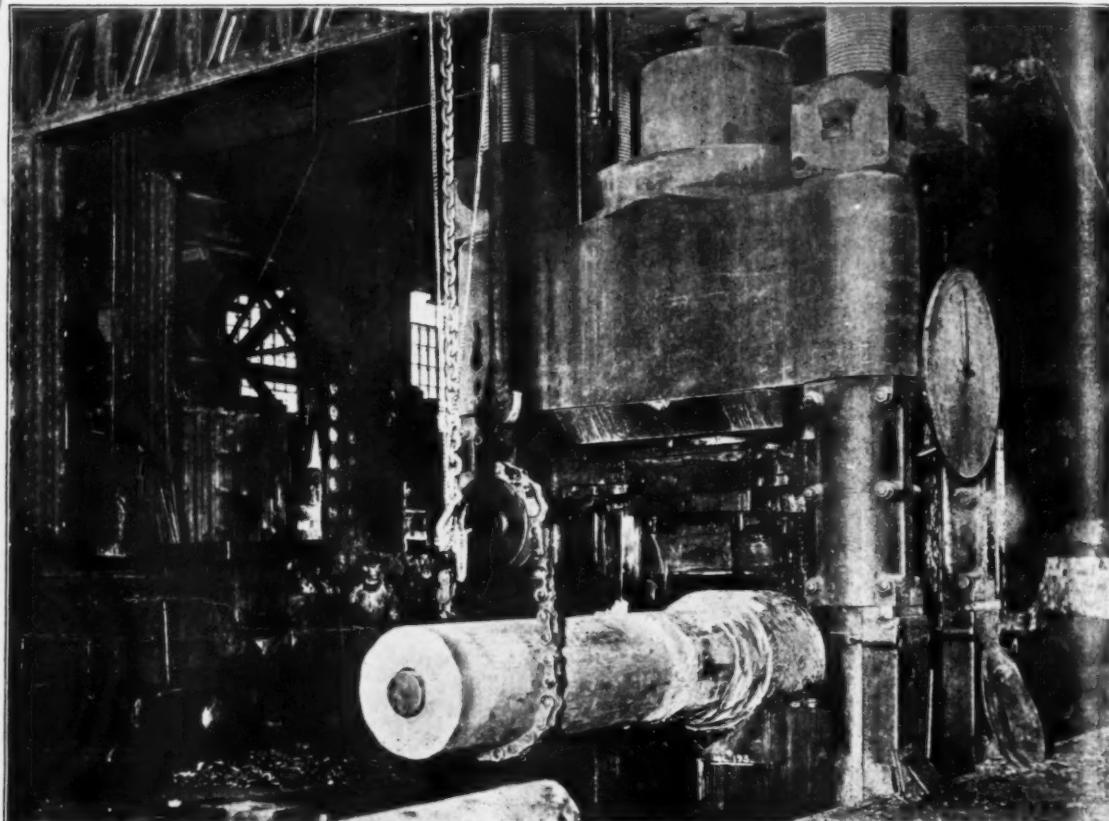
How will you answer them, coal miner, food producer, merchant, manufacturer, teacher, preacher, day laborer, clerk or banker? Are you doing your utmost to relieve the world by work, work of brain and brawn, work to which you can look back with satisfaction on that great final day when some shall hear, "Well done, good and faithful servant," and others shall hear the just condemnation of a just and righteous God?

Work, and more work, work to the last ounce of strength and to the highest degree of efficiency; work such as the soldier gave on the battlefield amid the roar and crash of cannon and the death-dealing rifle and the hell-devised bomb; work in a spirit of sacrifice and unselfishness; work, because upon every man's work will rest in part the death or the life of some poor innocent sufferer—this must be the inspiring thought in every man's life just now.

Profits and wages are not today the supreme issue. Both are important, vital in their way, but they sink into insignificance by the side of the mighty issue of saving the world from the forces of evil which fatten on the agonies of the starving and freezing people.

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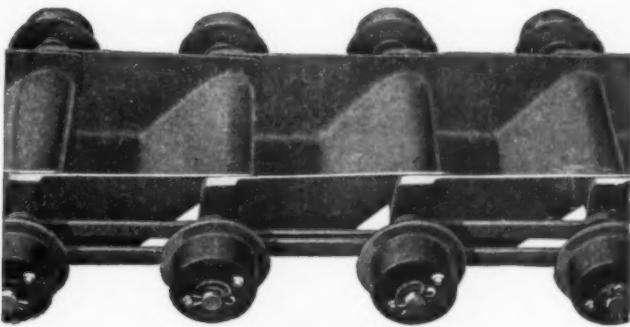
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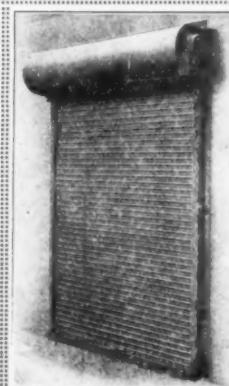
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MILLIONS THROWN TO THE WINDS.

THE United States Shipping Board has issued the following statement:

"Since the first of January it is estimated that strikes have cost the Shipping Board a total of \$37,000,000. There are included marine and harbor strikes, longshoremen strike and shipyard strikes. These have occurred on the Atlantic, Pacific and Gulf coasts, but the results of the coal strike are not included.

"There are not included losses by foreign or privately operated American vessels, nor indirect losses to the public due to interruption of regular movement of shipping. Among such indirect losses are those due to congestion in port and on inland transportation systems, spoilage of perishable cargo and delays of food supplies needed in this country and abroad."

A loss of \$37,000,000 to the Shipping Board means a loss of that much to the American people, who own the Shipping Board. If the indirect losses also were counted they would run into the billions instead of the millions. Nor is it possible to compute how many children have gone done without food or how much other human suffering has resulted from the strikes.

Nor are the strikes at an end, since within the week longshoremen from the Atlantic and Gulf ports have been in Washington and New York demanding increased wages amounting in some cases to as much as 100 per cent. They are longshoremen who load in the coastwise trade. They want to be put on a parity with longshoremen in the transatlantic trade, and they want wages in the Southern ports to be the same as wages in the Northern ports, whether living conditions are identical or not.

We believe that every man is entitled to a living wage, to as liberal a wage as business can stand. But when it comes to holding up the American people, who are already burdened by the high cost of living, and starving them into submission to heartless muleting, it is about time for the people as a whole to rise in their might and demand a square deal.

The federated unions have become a pistol pointed at the heart of the nation.

THE DECREASING PRODUCTION OF CROPS PER CAPITA OFFICIALLY ADMITTED.

IN his annual report Secretary of Agriculture Houston makes an over-optimistic review of our agricultural progress, for just one brief line tells a startling fact which will be overlooked by most people, though it should have been the dominant note of the report. This one startling item, which only serves to emphasize what the MANUFACTURERS RECORD has for years been saying, is that "the average rate of increase of all crops for the past 25 years is about one-half of one per cent a year." Place against this increase of one-half of one per cent a year the fact that our population has increased three times as rapidly, or at least one and a half or more per cent a year, and we indeed have a startling situation as to the relative decline in production of foodstuffs which have gone on for a quarter of a century.

Secretary Houston says "the average yield for all crops for the decade ending in 1918 is about 16 per cent greater than for the average for the decade ending with 1890." This merely serves to emphasize the rapid decline of foodstuffs per capita during the last two or three decades. In this decreased yield per capita is found a cause for advancing food costs, which no government on earth can prevent by arbitrary laws against high prices.

The mere fact that population is increasing three times as rapidly as food production merely confirms what the MANUFACTURERS RECORD has been ceaselessly pointing out for 10 years or more. Two years ago we personally urged President Wilson to press this growing shortage of food upon the attention of the country in order to forestall the certainty of socialistic and anarchistic turmoil, which would inevitably come unless the people were made to know that high cost of food was fundamentally based on a decreasing supply. It was pointed out to him that city population was growing two or three times as rapidly as country population, and that now only one-half or less of our population live in the country as compared with over 70 per cent in 1880. Mr. Wilson admitted the correctness of the figures given him, but deemed it unwise to make them public "for fear they would produce a food panic," for which he thought there was no justification.

Secretary Houston's figures now made public amply confirm all that we wrote to President Wilson and all that the MANUFACTURERS RECORD had been saying for 10 years as to the danger of a growing food shortage in this country.

This condition would have forced itself upon public attention had there been no war. The war merely intensified and emphasized the danger. Moreover, in a period of high wages and full employment the per capita consumption of food rapidly increases, and this has been in evidence for four years now. Moreover, Europe has called upon us heavily for food, and must continue to do so for some years. To meet this condition will tax the utmost power of our country. The trend from the farms to the city must be counteracted. Labor on the farms must be made attractive by high wages

and comfortable homes and good highways or else a continued decrease of food producers and an ever-growing increase of city dwellers as food consumers will bring about a crisis which might shake our Government.

We cannot but feel that in desiring to keep these actual food facts from the public President Wilson made a mistake of tremendous moment. While the MANUFACTURERS RECORD was constantly publishing the actual statistics of food production, showing the alarming trend of decreased supply, which now finds official confirmation in Secretary Houston's report, Mr. Wilson was on several occasions saying we had an abundance of food for our own needs.

The stern logic of facts once more proves that the MANUFACTURERS RECORD was right and President Wilson was wrong.

WE WELCOME GENERAL GRANT'S GRAND-DAUGHTER AS A SUBSCRIBER.

Dear Sirs:

I enclose check for one year's subscription to your paper, which I greatly admire.

Please send it to me at the Hotel Buckingham, New York City (Fiftieth Street and Fifth Avenue), where I now live, and oblige.

Yours truly,

PRINCESS CANTACUZINE.

New York, December 1, 1919.

Among our most enthusiastic readers are many women. If business men would take their MANUFACTURERS RECORD home they would soon find their wives and children more interested in it than in the trashy literature of the hour.

THE CITIZEN'S DUTY.

AT no time in the past 50 years has it been so incumbent upon the thoughtful, intelligent business men of this country to take an active interest in the political issues of their locality and of the nation as at present.

To state this is but to refer to what is obvious to everyone, but it is necessary to drive it home with such insistence that there will be aroused a stern determination to see that in the near future a man will no longer be considered a good citizen if he fails to accept his share of the obligations which rest upon him as a voting member of society. The amazing indifference of the average man as to the possible improvement in the conduct of our political affairs would be more astounding were it not based oftentimes on unfortunate experience and indifference on the part of the general public to efforts which have been made to elect constructive leaders instead of machine politicians.

But the time has come for a change. The time has come when every man who thinks at all beyond his own immediate affairs must see that the critical period is no longer afar off—it is here. The crisis in our very existence today, the arrogance of radical labor, the criminality of the Reds, the unrest due to living costs and economic disturbances can, much of it, be traced back directly to the political indifference of the so-called good citizens in past years and the consequent election to office of the spineless variety of political plum seekers. We have, unfortunately, too many of this kind of so-called "statesmen," and they must be driven out of office if the nation is to survive.

If a time ever existed when the character of those who were elected to public office should be a matter of concern to every voter, and only men elected who are qualified by experience and ability to take positions as leaders in our affairs, the time is now. Present problems demand an altogether different sort of attention to politics and public duty, and failure to respond to this on the part of every citizen accentuates the national peril.

NORTH CAROLINA'S EXCELLENT PLAN TO MAKE FARM LIFE MORE ATTRACTIVE.

COMFORT and sanitation are outlined for the farmers of North Carolina to an extent hitherto almost unheard of outside the big cities. Electricity from small streams or gasoline engines is to give light for the farmhouse and barn, power for the milking machine, corn sheller, ensilage cutter, grind-stone, etc., and for the sweeping, washing and ironing, etc., of the household. Engineers are to supervise sanitation, sewage disposal, water supply, heating, ventilation and lighting of farmhouses, and the installation of a telephone in every home will be encouraged. Not only the conveniences, but the luxuries of life will thus be secured for the farmers in their homes.

This great movement is being fostered by the State itself, working through the State Highway Commission in collaboration with the Bureau of Extension of the University of North Carolina. The work will be done by a staff of engineers operating as the Division of Country Home Comforts and Conveniences. The services of this organization are available by any North Carolina farmer without expense. All that is necessary to do to start something is to write a letter to the director of the division at Chapel Hill.

This is the kind of a plan that all States should adopt in the interest of making the farm and farm life highly attractive. When a farmhouse has more comforts and conveniences than the average city house, and when much of the rough work that falls to the boys, the women and the girls is taken care of by electrically-driven machinery, there will be less temptation to leave the farm for the city bright lights and the conveniences of the town.

It is proposed to utilize small streams for generating power where feasible; otherwise, to provide an electrical unit to be driven by gasoline or kerosene. There are many small streams in North Carolina from which one to ten horse-power may be developed. This will be sufficient to operate water-wheels, generator and auxiliary apparatus. This will furnish power for all kinds of domestic purposes.

The idea should be adopted all over the South, utilizing water-power where available, and other means where there are not suitable streams. It is a very wide-awake move that North Carolina has made, and it is an example that should be followed generally in the interest of better surroundings for the farmer and better results from his essential work of raising food and more food for a partially famished world.

ONE KIND OF CHRISTMAS PRESENT.

If you are uncertain as to what Christmas present to make to some business friend, or perhaps to your boy at college, to some minister whose limited means denies him the privilege of subscribing for many papers, to your superintendents or others, you can always depend upon their welcoming with great heartiness a subscription to the MANUFACTURERS RECORD.

Many people make a regular custom of sending their favorite publication to one or more friends. Some send one or two copies and some send dozens of such subscription gifts. To many thousands of people of all sections a Christmas gift of a year's subscription to the MANUFACTURERS RECORD would be most welcome.

We cordially invite our appreciative readers to favor their friends in this way. Send on your orders today, and we will notify the friends thus favored that these are Christmas gifts, and send them the name of the giver or givers.

Governor Allen Again Attacks the Cotton Industry

State of Kansas,
Henry J. Allen, Governor.
Topeka, Kans., November 17.

Editor Manufacturers Record:

I have read carefully the editorial comment in the MANUFACTURERS RECORD of October 30, to which you called my attention in your letter of October 31 and in your telegram of November 10, asking for an expression of my views thereon. The editorial is written in excellent spirit, and I agree wholly with the expression that the maintenance of order under all circumstances is the first duty of government and the only safeguard of civilization.

In your editorial I note the expression, "Every man who is not now doing his utmost to increase production is a slacker in the greatest warfare of history." With that sentiment I heartily agree. It was the realization of this truth that impelled me to refuse the invitation from the cotton speculators to join in a movement to organize the cotton growers of the South for the purpose of reducing the production of that needed staple. I see these cotton men have now followed up that artificial movement to curtail production by another movement of the same kind for taking out of circulation 2,000,000 bales of cotton for the purpose of creating an artificial shortage so that prices may be higher. I am calling your attention to this because at the time I first objected to it I received from the winter resort in Florida, where you were staying at that time, statements and letters upholding the action of the cotton speculators and attempting to justify the curtailment of production. At that time apparently the eloquent sentiment, "Every man who is not now doing his utmost to increase production is a slacker in the greatest warfare of history," had not occurred to your mind.

It strikes me that men who hope to have leadership should be able to see both sides of a proposition of this character. I am frank to say that I cannot distinguish between an effort of financial interests to limit or reduce production for their own gain and an effort of radical labor agitators to increase the wages of labor at the expense of the industries of the country.

What this hour needs, as I maintained some months ago, and still maintain, is more production of every staple used in the world, the restoration of the national commercial movements and the untrammeled operation of the law of supply and demand. This includes cotton as emphatically as it includes coal, steel and food products.

I am opposed to the class-minded effort of the labor agitators. I am equally opposed to the class-mindedness of those who would deny even-handed justice to all alike. I find myself condemning with equal severity the financial speculator who is willing to trade upon the misery of the world for his own enrichment, and the labor agitator who offers to workmen an unsound class appeal. They are equal enemies of this country, and no criticism which attempts to justify one and condemn the other can hope to receive general acceptance.

HENRY J. ALLEN, Governor.

The principle that "every man who is not now doing his utmost to increase production is a slacker in the greatest warfare of history" not only did occur to the MANUFACTURERS RECORD last spring, but it has been consistently preached by it for months. There has never been a time, in fact, when the MANUFACTURERS RECORD did not support the Biblical injunctions which give the sanction of divinity to the laws of labor and production, since stated in scientific form by our economists.

The Governor of Kansas still suffers from the strange delusion that he received last spring some sort of invitation "from the cotton speculators to join in a movement to organize the cotton growers of the South for the purpose of reducing the production of the needed staple." There never was, of course, any such movement. There was a movement, the wisdom of which has since been abundantly vindicated, of cotton producers, merchants and bankers, to quit making a thank offering of their labor and existence at the altar of cotton.

"Cut down your cotton acreage and devote it to the production of food!" was the cry. The circular issued by the South Carolina Cotton Association and printed in the MANUFACTURERS RECORD at the time, stated: "A farmer's business is to farm, and every acre he can make productive adds that much more to the wealth of the world. * * * Diversification of crops is a common-sense policy. * * * Plant some of your land in feedstuffs and foodstuffs, then you will be helping to both feed and clothe the world and make a reasonable profit for yourself."

We never heard of any responsible person in the South advocating curtailment of production; Southern leaders were urging more production. They urged less cotton and more other crops.

He who ran might have read that, but the Governor of Kansas preferred to take the position that unless Southerners produced cotton they were slackers and traitors. He apparently was not concerned about the quantity of production, but the kind of production. Couldn't the Kansas farmer raise enough wheat to keep Southern farmers fed if the Southern farmers would pay enough? Why give up cotton to raise their own foodstuffs? That would disturb the equilibrium of merchandizing and might put the Southern tiller in just as comfortable houses as the Kansan tiller. A people who had endured half a century of poverty by worshipping at the shrine of cotton must continue to worship there, "by Hickory," and if they tried to plough themselves into prosperity instead of further poverty, the Governor of Kansas would put the Department of Justice at their heels and show them a thing or two!

True, the black man had been manumitted, but he and his white employer, too, were to be chained to a new form of slavery, economic in character, and sweat in the sun, so that the people of India might have cheap shirts and the mills of the world fatter profits. So, apparently, reasoned the Governor of Kansas, who apparently thinks a Southern man works only when he produces cotton; if he does anything else, he is a slacker.

Governor Allen should indict the boll-weevil and punish the insect severely. For instance, the sea-island cotton industry is being abandoned entirely. Planters are going in for peanuts and stock. It may be that it is unconstitutional for them to do so. It can be proved in court that they and their people before them always raised cotton, and that they are abandoning the industry utterly. They say they cannot raise cotton profitably any more, but doubtless Governor Allen could find means to make them produce it, anyhow. Yet these "slackers" will doubtless do a little more work next year than they did last, if the Governor of Kansas will permit them to remain out of jail.

We rejoice that Governor Allen is heartily in favor of the maintenance of order. We could wish that he were also not in favor of the maintenance of the OLD ORDER. We could wish that he also would desire to see the South quit sacrificing its rich lands to a fetish and devoting them to varied work in the enrichment of civilization. We could wish that the Governor would open his mind and let enter the truth, from whatever quarter it might come.

The Governor is also alarmed because the South contemplates selling its cotton crop gradually. He seems to think that 2,000,000 bales of cotton are to be held from the market by speculators for the purpose of creating an artificial shortage so that prices may be higher.

It is a pity that the cotton mills of the world cannot spin the cotton of the world in one day. They cannot. They operate the year around. Is it a crime for them to rush into the market and try to get their full year's supply of raw material all at one time? The Governor does not so intimate. Yet it is a crime, he urges, if the farmers themselves hold their cotton until it is needed instead of dumping it all on the mills for them to do the holding. The crime is not in the holding, but in the identity of the holder. The mills may stuff their storehouses to the breaking point and it is good business, but the farmer who puts his cotton in a storehouse is an enemy of mankind.

The ethics of economics is taught in more schools than one.

It may be that the Governor is acquainted with some business that does not allocate its product. It may be that he

knows of firms which have no sales departments and rush their goods to market to be sold at what they will bring. But if there are such firms they are not old ones, and a few years hence they will have been forgotten. A Kansas cyclone could not rip their buildings to pieces more surely than the laws of economy would uproot such organizations.

In his message to Congress the President said: "During the war the farmer performed a vital and willing service to the nation. * * * He indispensably helped to win the war. But there is now scarcely less need of increasing the production in food and the necessities of life. I ask Congress to consider means of encouraging effort along these lines. The importance of doing everything possible to promote production along economical lines, to improve marketing and to make rural life more attractive and healthful is obvious."

The South intends to increase its production in food, as the President urges, and expects to gain from such activity not only cheaper living, but also complete freedom from its enslavement to cotton and a fair price for such cotton as it harvests.

What is a fair price for cotton? Oklahoma is not so far from Kansas, and a press dispatch from Hobart, in the former State, tells of a "cotton vacation" given by the school authorities to enable children to pick the staple and save the crop. The dispatch states that the scale of wages for picking used to be 40 cents the hundred, and is now \$3 or more. Cotton is the one great crop which must be worked by the hands of man from seed to gin. Picking is one item of labor cost. It indicates how the cost of production has risen.

It is a comparatively easy thing to secure additional labor to harvest the Kansas wheat crop. Picking cotton is another proposition.

Aye, let all men, North and South, West and East, labor to increase production, but let them use judgment in the doing of it. Let them not labor to mine some metal of which there is already a surplus. Let them rather labor to produce coal, of which there is urgent need. Let them have reward for their increased production, as they will have in the South if they labor at diversified farming, and which they will not have if they devote their energies entirely to cotton.

The Southern lands are older, longer cultivated, richer, perhaps, than Kansan lands, and the people of the South not less progressive than their friends in the West. Yet there is a blush of prosperity in the wheat country such as the South has never known. Drive through the Kansan fields and compare them with the poverty-marked farms devoted exclusively to cotton. Test comparative acreage prices in the open market. Compare the per capita wealth of Kansas with that of South Carolina. Then let any man decide for himself how "cotton enslaveth a nation." Then ask who are the profiteers, if there are any.

We glory in the prosperity of Kansas, and we scorn any charge of profiteering, but equally, with all the power that we have, we urge on the South that it follow Kansas and produce the things that will bring wealth and prosperity. With all the power we have, we urge that the South refuse any longer to be yoked to the plow with despair. She must demand her heritage; she must produce with judgment and market with understanding.

To do these things is not to be a slacker, but is to add to the virility of the nation, to increase the national wealth and to bring to a great section of the country the prosperity it deserves and at last has made up its mind to get.

TO BETTER RURAL CONDITIONS.

THE Board of Trade of Asheville, N. C., is now engaged in a campaign among the farmers of that section for the purpose of inducing them to install modern sanitary plumbing in their houses and improved lighting systems for their

homes and barns. Coupled with these efforts are the activities of the Board for better highways, because it has been clearly demonstrated that good roads are as essential to the proper enjoyment of life on the farm as are modern and well-kept dwellings.

In undertaking this work the Asheville organization has recognized the fundamental principle that the progress and prosperity of a municipality depends in a large measure upon the development of the country about it. If the farmer is progressive in his work and contented in his home, he makes the best sort of customer for the city merchant. To a large degree there is mutuality of interest. For a lasting prosperity, the rural population must develop in similar degree with the city to which it send its products.

THANK THE LOYAL MINERS.

Is there no commendation in Washington for the loyal miners of the nation who have stood fast by the traditions of the Government of which they are a part, have refused to yield to the revolutionists who have circulated among them, and who have, day by day, seen their duty and performed it?

There should be some expression of appreciation extended to these men. Congress should grant them a vote of thanks. They are entitled to such consideration, and this is no time for the Republic to be ungrateful.

FOR THE HELP OF MINISTERS.

IN a recent issue we stated that owing to the high cost of living, a Southern minister, a great admirer of the MANUFACTURERS RECORD, had felt compelled to discontinue his subscription. We suggested that business men in the South should subscribe for a few business publications, including the MANUFACTURERS RECORD, for their pastors. This has called forth a letter from L. T. Cheek, president of the Cheek-Neal Coffee Co., Jacksonville, Fla., in which he says:

"Your article, 'A Suggestion to Business Men,' on page 136 in issue of November 6 has just been read by me.

"I do not know who that pastor is, but I want you to send the MANUFACTURERS RECORD to him for another year and send me bill for same. Yours is the best paper in all the country and anyone who had been a reader of it for any length of time would miss it greatly. Please attend to this at once and oblige."

As Mr. Cheek does not know even the denomination of the minister for whom he is subscribing, his desire to see that he shall continue to have the MANUFACTURERS RECORD is especially worthy of commendation.

The ministers of the Gospel, doing the greatest work on earth, never have received adequate salaries. Indeed, most of the salaries paid to them have been beggarly in character. And these men, who ought to be entirely free from the harassing worries of financial difficulties in order to give their time wholly to the great work of preaching the Gospel, are harassed at times almost unto death to know how to meet actual needs of their families. Not many of them can afford, especially in these days of high cost of living, any of the benefits and pleasures of wide reading, and until all churches recognize their responsibility to greatly increase the salaries of their ministers, laymen can do great good by subscribing for standard publications for ministers of their own or even of other denominations.

The MANUFACTURERS RECORD is more than willing to do its share. While every annual subscription costs, for the paper, typesetting and presswork alone, far more than the annual subscription price received therefor, we have made a special rate of one-half the subscription price, or \$3.25 a year, for ministers when received direct from them.

The Reds Are Putting America on Their "Sucker List"

IT is related that Lynn J. Frazier, the Non-Partisan League Governor of North Dakota, had Presidential aspirations. He was on the program for a keynote speech at the national convention called to meet in Chicago to form a new labor party. There was a scheme to amalgamate the League and the labor element in one grand organization of vote-getters, and it was thought that Governor Frazier might ride on the back of this motley array into the White House. But, according to the press dispatches, "then came the introduction of a plank for the nationalization of land, which hit 90 per cent of the members of the National Non-Partisan League. League delegates to the convention withdrew; their leader announced that the League was not yet prepared to sacrifice its identity, and Frazier did not show up at all."

The incident is illuminating. The wisdom of the ancient adage begins again to reveal itself. Through the mists of sovietism and all the other hungry programs of confiscation it is still possible to comprehend that everything depends on whose ox is gored. So long as sovietism means the confiscation of factories, some farmers are for it; so long as it means the confiscation of land, some industrialists are for it; but there are no farmers for it when it means the taking of their individual property, and there are no industrialists for it when it means the taking of their particular belongings.

The great conspiracy of loot can appeal only to those who hope to get loot; never to those from whom the loot is to be taken. The Non-Partisan Leaguers were enthusiastic about grabbing everything in sight until it was suggested that in that category must be included their own lands. They then discovered that they were in the wrong boarding-house, and they ran for cover like jack rabbits.

There is not now and there never has been in all recorded time any great nation in which the possession of property is or has been so general as in the United States. There is no human being so down in the depths of poverty that he cannot by industry acquire substantial holdings in the United States. There died last week a man who began life with nothing, and on leaving it left more than a hundred millions of dollars in gifts to his fellow-men. A few weeks before him there died another man, foreign-born, who came to the United States a pauper, and who lived to distribute in gifts of one sort or another more than three hundred millions of dollars.

What promiscuous riches Lenin and Trotsky are promising from the shambles they create America was offering to men of all the earth a hundred years ago, and has been offering ever since. Here the national wealth has never been walled in. Opportunity has walked naked through the streets of the towns and down the country lanes. Who wanted her could take her.

There is no factory in America so great that the working-men laboring in it cannot acquire it. Under our system of government the way is open to them. They have but to win, by brain and energy, the money to purchase it. Is the method difficult? Some tens of thousands of men now living have used it successfully. What there is of wealth in the United States—wealth in the form of property, wealth in the form of position at the bar, wealth at the surgeon's table, wealth in the forum, wealth in science, wealth anywhere, in any and every form—belongs to no class, but to all classes. The Who's Who of America is a list of nobodies who became somebodies. Pick up a history of the leather business, or the textile industry, or the steel citadels, of any or every industry and business, and there is found the romance of acquisition as provided for under American government.

The proletariat! Why, America is the proletariat.

Not the proletariat of stupidity or the proletariat of sloth, but the proletariat on the march, the proletariat from which each day are emerging the men and women of ability who

have proved their right to lead, who have won the right to ride on horseback.

What, then, is it that the emissaries of revolution want? Short cuts? Even they might be excusable in a status of society such as that in France before the Revolution. No, short cuts is not the sole answer. They do not want to play the game according to the rules. They want to get something for nothing. They want to make the fact of possession conclusive evidence of treason until those who have not have acquired everything there is. It will be time enough then to re-establish the rights of property. They want to acquire by confiscation and by murder. They are opposed to the American method of testing a man's ability to own by demanding as a prerequisite evidence of his ability to acquire.

Three generations from shirt sleeves to shirt sleeves! Why, America built up a system long ago that negatived what revolutionists mean when they cry "Capitalism."

Yet there has never been a great civilization constructed that in the heyday of its success the beast in man did not arise to overthrow it. Two thousand years ago Cataline organized in Rome a conspiracy against civilization such as Lenin fomented today, and ages before Rome was heard of there arose a Tower of Babel. There will always be debtors, bankrupts, have-nots, wantons and incompetents to thirst for the rewards they are unwilling to work for.

It is "the potentiality of Bolshevism," as Henry W. Taft expresses it, "which may eventually lead us through a revolution unless we take drastic steps to prevent it from obtaining a foothold in this country."

Bolshevism is a threat against the family of every man in the country who owns anything or ever hopes to own anything. There needs, therefore, only to be general dissemination of that fact throughout the nation to make the success of any Bolshevik program impossible, provided there is organized resistance. But it is sheer madness, on the other hand, to permit the fomenters of revolution to crawl about the country spreading their insidious doctrines and indulging in promiscuous lying.

There is a bill before the Senate and another before the House to give control of the deportation machinery to the Department of Justice. Such control rests now in the Department of Labor, which has been a veritable hothouse for Reds if the evidence unearthed in New York is to be believed—and it is believed. The proposed legislation ought promptly to be enacted. Its enactment should be demanded by business men. So important is it, in fact, that it is worth the cost of a telegram to Congress and of a letter to follow. There ought to have been a quarantine long ago against these human disease-spreaders. The least to be done now is to send them back to their spawning grounds when they have been identified and tagged.

Another proper program for real Americans to follow is to meet the Red propaganda by the distribution of true information exposing the menace and absolute ruin certain to follow Bolshevism. There are literally millions of men in the country who have tolerated the agitators because they have not realized what the agitators were aiming to do. They will kick them out fast enough when they discover the truth.

Easy is the descent to hell, where all who enter must abandon hope. It is a descent to hell that the Reds preach. They are the get-rich-quick salesmen in their most advanced state of development. They have made all Russia a "sucker list," and that has not contented them. They have taken the funds thus acquired to seek new victims in the United States. They want this country. They have a very shrewd prospectus. They want to go so fast in getting what does not belong to them that they cannot even wait for heaven. They abolish religion because it gives heaven as a reward for a lifetime of

good behavior and work. They offer in its place a heaven on earth, a heaven they are going to make, and that is the enterprise in which they are selling stock.

They are also selling bonds, and this is what appears on the face of those bonds as seized by agents of the Department of Justice:

SOCIAL WAR BOND

TO HELP CRUSH THE CAPITALIST SYSTEM.

INTEREST ON THIS BOND WILL BE PAID THE DAY AFTER THE SOCIAL REVOLUTION.

ISSUED BY THE REVOLUTIONARY PROPAGANDA GROUP.

That is the kind of bunk they are selling. They are going to abolish capitalism, and the way they are going to do it is to begin to pay interest on bonds the day after they succeed!

But it is such sheer nonsense that wins recruits, and it is nonsense of a more terrible type to ignore the necessity of meeting this kind of propaganda by organized resistance.

CALAMITOUS EFFECTS OF THE EXCESS-PROFITS TAX.

THE optimism expressed in the annual report of the Secretary of the Treasury is, as he himself declares, "based upon the practice of the most rigid economy and the continuance of ample revenues from taxation. Any other policy means a calamitous upsetting of the entire program."

The apparent requirements of the Government for the next eighteen months aggregate \$9,000,000,000. It may be that Congress can materially cut the departmental estimates before it—the leaders hope to cut them in half—but it is doubtful if the most rigid scrutiny will produce a final reduction of more than a billion. Nor do the estimates take into account the innumerable proposals now before Congress, which call for gross expenditures in the billions. Few of these projects will get through, but some of them will, and the treasury must pay the bill.

There will be universal agreement with Secretary Glass' declaration that the excess-profits tax "encourages wasteful expenditure, puts a premium on overcapitalization and a penalty on brains, energy and enterprise, discourages new ventures and confirms old ventures in their monopolies. In many instances it acts as a consumption tax, is added to the cost of production upon which profits are figured in determining prices, and has been, and will, so long as it is maintained upon the statute books, continue to be a material factor in the increased cost of living."

The MANUFACTURERS RECORD has repeatedly pointed out the iniquity of the excess-profits tax. It probably more than any other one thing, is responsible for the high cost of living in its most aggravated form. It is not only a consumption tax—it is sometimes a consumption tax multiplied eight times.

But it is not clear that the solution of the difficulty is so simple as the Secretary suggests. He would substitute for the excess-profits tax an increase of the normal income tax. We are in favor of a wide distribution of the cost of government. The taxpayer is a better voter than the non-taxpayer. Men will pay attention to the extravagant expenditure of their money at Washington when the payment of taxes is a real burden on their shoulders. Heavy individual taxation might be a factor in bringing about that economy of which the nation is so fearfully in need.

But, on the other hand, Americans are not accustomed to being mulcted by the tax collector. Exorbitant taxes breed unrest and revolution. The taxing power is the powder magazine of organized government. It explodes if unwisely handled.

Nor is it clear that sufficient revenue would flow into the treasury under the proposed arrangement. Estimates have

been made on that point, no doubt, but estimates are very seldom correct.

Leaders in Congress, we understand, have about made up their minds to simplify the method of making income tax returns of all kinds, so that the ordinary citizen will not have to hire a firm of lawyers to tell him how to file his returns, but they will not attempt to change the system of taxation. They are afraid to do so. The money requirements are so huge that experimentation in income production is not considered wise.

What the Government is facing, and knows it is facing, is an inability to meet expenses unless a certain amount of profiteering is permitted. There must be plenty of fat incomes or the treasury will go bankrupt. There is a way out, but not by subterfuge. The time is coming when Congress will have to tell the people plainly that they must pay for the war and for the unconscionable extravagance of which the Government has been guilty, and that they must pay for it either in the form of high prices for everything or by direct contributions to the treasury. There is no magic by which the debt can be paid otherwise. It is going to come out of the pockets of the American people, one way or another, and what the name of the tax happens to be does not make much difference. What Secretary Glass meant to say, we suspect, was that he wanted all of the tax that was paid to come to the treasury, whereas the excess-profits tax is sending a part to the treasury and another large part into private pockets.

But the facts all dovetail to show that pronouncements from Washington as to an approaching lower cost of living are utterly fallacious. There is no method by which wages can be raised all along the line and taxes increased in every direction and the cost of goods fall. A nation is a powerful organization, but when it tries to lift itself by its own bootstraps it presents just as pitiable a spectacle as did the poor individual who first tried that ridiculous experiment.

WHEN TO WELCOME GERMANS INTO WORLD FRIENDSHIP.

WE are in receipt of a postal card which comes from Chicago, on which anonymously someone who signs his name "Manufacturer" has written:

"Civilization never was in danger when the Germans were in sight of Paris. The opposite is the true fact, and if you are wrong in the beginning, as many true Americans believe now, how can I have confidence in whatever you have to say in the future?"

The pro-German who wrote this is as wrong now as were the Germans who in their campaign of murder and robbery and looting overran Belgium and sought to destroy France, with the definite purpose of overrunning the world and making Germany the world's master. Civilization was in danger from the moment that the German army started its accursed march through Belgium. Civilization was in danger just so long as there was any possibility of the hell-devised and hell-directed campaign of Germany, and the longer any honest man studies the situation the more thoroughly he will be impressed with the fact that civilization was in danger and was only saved by the power of the Allied and American armies as they stayed the onrush of the unspeakable Huns, who gloried in their campaign of ravishing and murder and looting.

It is possible that the pro-German who signed this anonymous card may never see this reply, as we do not know whether he is a reader of the MANUFACTURERS RECORD or not, but we would be glad to know that every pro-German in America and every German in the world could have these facts driven deep down into their souls until all Germans repent in sackcloth and ashes for their fearful crime. Then Germany and Germans could be welcomed back into the world's friendship.

"The Guarantees Which Will Be Given to You Will Pledge That the United States Will Send Its Army and Fleet Across the Ocean"

THE MANUFACTURERS RECORD has persistently maintained since the Covenant of the League of Nations was first published that its terms constituted a pledge that the United States would send its fleets and armies abroad in the event of certain contingencies particularly described.

That position has been assailed by men who have refused to believe that the Covenant meant what it said, or that it was the intention of the President so to pledge the nation.

The country is deeply indebted to Frank H. Simonds, the eminent writer on war topics, for bringing forward the exact text of a speech delivered by President Wilson at a plenary session at Versailles May 31. The subject under discussion was the section of the treaty with Austria, which authorized the four great Powers to intervene in behalf of minorities in Roumania and Serbia.

The following are verbatim quotations from the President's statement:

"This distribution made, the allied and associated powers will guarantee the maintenance of the conditions which we shall decide upon, having made those conditions as just as possible. These powers are the nations which will undertake the contract and the burdens; on them will rest the chief responsibility, just as, by force of circumstances, they have made the greatest effort during the war. **And it is necessary always to remember that it is force which is the ultimate guarantee of the public peace.**

"Under such conditions it is unreasonable that we should say to you, speaking in the language not of dictators, but of advisers and friends: 'We cannot guarantee your frontiers here if we do not believe that they conform to certain principles of right and wrong.'

"Exactly the same line of reasoning applies to the question of minorities. It is with the same concern that conditions as to minorities has been discussed. If you want the principal allied and associated powers to guarantee the existence of your states, is it unreasonable that they should be satisfied as to conditions which they regard as indispensable, if we are to avoid future causes of war? * * *

"If these states are solidly established, thanks to the treaty which we are making together, the right belongs to the powers which will guarantee the execution of this treaty, in the last analysis, to see to it that the conditions on which these states will be established are of a sort to insure the public peace. Our desire in this is not to interfere in any fashion which might injure these states in any particular, but to aid them and to help the common cause. We hope that you will not hesitate to accept our point of view, because we cannot see another means of settling the question.

"How could the Government of the United States go before the Congress and people of the United States and pretend that it had assisted in insuring the peace of the world, if it believed that the settlement agreed upon here contained unstable or dangerous elements?

"If the world should be troubled again, if the conditions which we all regard as fundamental are challenged, **the guarantees which will be given to you will pledge that the United States will send its army and fleet across the ocean.** Is it surprising, under such conditions, that it should desire to reach a solution of the various problems which seems to it satisfactory? * * *

"It is a question of working in common, and this collaboration can only be founded on a definite agreement. To leave the solution of these questions to later negotiations, as somebody has suggested, would amount to saying that when the conference has completed its labors some separate groups would decide among themselves what would in reality become a part of the general foundation of the peace of the world. This seems impossible.

"I hope that we shall reach—that is our goal—a cordial and voluntary agreement to co-operate on the only basis possible. That basis, one must express it in this fashion, will have to be supplied by those who will furnish the force which will insure the maintenance of peace—by those in whom will dwell that force which will be the supreme guarantee of peace.

"It is essential not to misunderstand the sense we attribute to the word 'force.' The United States has never had any aggressive purpose, and you all know the reasons for our intervention in the affairs of the Old World.

"We pursue a common goal. All that we desire is to aid you in attaining that goal is accord with us. We only want to associate ourselves with you, and we do not want to do anything which could run contrary to your interests."

It will be noted that the President stated unequivocably that "**the guarantees which will be given to you will pledge that the United States will send its army and fleet across the ocean.**"

That is what the Covenant says; it is what the MANUFACTURERS RECORD has insisted that the Covenant provided, and it is what the Senate, by its wise reservations, has determined the United States shall not do. The Senate refuses to pledge the United States aforesome to espouse a particular cause in Europe. It retains for the nation its freedom of choice, reserving in the Congress, as provided in the Constitution, the sole right of declaring war.

It is true that the President refused to accept the Roumanian contention that this right of intervention in behalf of minorities should be extended to include all countries. That would have permitted the League of Nations to intervene in the United States in behalf of the negro, and in the United Kingdom in behalf of the Irish. But the speech is conclusive evidence of the fact that it was the intention to pledge the use of the American Army and Navy in certain parts of Europe. That principle appeared in more extended form in the Covenant. In the one case, the use of the American Army and Navy was pledged to protect the rights of minorities in parts of Europe; in the other, the employment of both service arms was pledged to guarantee the territorial integrity of the nations of the earth.

DISASTROUS DAYS FOR BEAR GAMBLERS IN COTTON.

THE profits of American cotton mills during the last five years have far exceeded anything which they had ever anticipated. Owners of cotton-mill stocks have seen themselves grow steadily richer as week after week these securities mounted to higher figures, until at least \$500,000,000 to \$750,000,000 have been added to the value to the Southern cotton-mill interests in the last three years. These mill stocks have doubled and trebled, and in some cases quadrupled, in value since 1916. This wonderful prosperity has broadened the whole field of Southern cotton manufacturers, and no one need be surprised if they should begin to invade the East and secure control of some of the big Eastern concerns, thus reversing the old-time condition when New England had such large interests in Southern mills. The Southern mills are now on their feet financially; their debts have been paid off; their treasures are replete with big working capital, and the mills no longer have to ask any financial favor of anyone.

The abounding prosperity of the cotton mills of the South and of New England, however, are matched by the enormous profits of English mills. A recent financial report sent by the Whaley-Eaton Service from London to its American correspondents says of English mills: "The cotton industry is making unheard-of profits, though handling a smaller quantity of material than before the war. The greatest domestic consumption is shown in a fall of exports of cotton cloth approximating 50 per cent. Prices of mill shares have doubled and trebled. Mr. Smethurst, Lancashire manufacturer, is quoted publicly as stating that 'it is a sin and shame for owners to pocket the profits now being made. Exporters of textiles made great strides during October, shipments of cotton yarn and manufactures being valued at two and one-half times the shipments for October, 1913, while the value of exports of woolens and worsteds about doubled.'

Under these conditions it is readily seen that the cotton manufacturers are making far larger profits than the cotton producers, and that they have paid much more for cotton than

the ruling prices of the last two years and still have made splendid earnings.

It looks, however, as though the great battle of the producers against the bear gamblers of the world has been won, and that those who have gambled against a fair price to the growers will at last get their just punishment in staggering losses. For years they have been leeches on the cotton trade, fattening on the life-blood of others. Now they must pay the penalty, and the MANUFACTURERS RECORD rejoices in the overwhelming financial defeat of these bear gamblers who for years have lived by robbing the farmer.

THE VITAL NECESSITY FOR A RIGHT SHIPPING POLICY.

THE disposition of the merchant ships which have been acquired by the Government at a cost of billions of dollars to the taxpayers is one of the most important questions before the nation today.

Aside from any irregularities which may have developed in the enterprise, the fact remains that the construction of the great fleets now flying the American flag was not only one of the great romances of the war, but it was also a miracle of achievement of which Americans in the years to come can speak with pride, even as the English-speaking nations everywhere today look back with admiration on the defeat of the Armada. The accomplishments differed in application, but the one, without the glamor of gunfire, was even greater than the other, and no less decisive in determining the course of human history.

We have not yet built a merchant marine. We have the ships, we are training the personnel, and we are building up the machinery of commerce that is a necessary feature of a marine.

The ramifications of American trade have multiplied during the last three years until they embrace the globe. The industry of the nation has become more vast than the domestic requirements warrant. It is imperative that hereafter the American manufacturer be able to offer his products for sale in every corner of the earth. He must be able to get them there in American bottoms, under American direction, with American speed and American efficiency.

Three years ago the creation of a merchant marine was largely sentimental; today it is intensely practical. The efficiency of that marine may determine whether a factory in Grand Rapids shall remain open or shall close. It may determine employment for thousands of men in California and for thousands more in Indiana. Freights in another decade are likely to be a decisive factor in trade. They may supply the differential which opens markets. A marine expensively managed, charging high freights, may spell bankruptcy for American enterprise in foreign lands.

It is more than unfortunate that for some reason the public is not taking an active interest in the measures under consideration in Washington which formulate a shipping policy. Were the tariff being revised, men everywhere in the nation would be giving the proposed schedules their close attention. The merchant marine is not less important than the tariff. It is to export trade what the tariff is to domestic manufacture. It is the determining factor in many cases, particularly in opening new territory, between success and failure. That the policy presently to be decided on must be the right policy should be apparent to everybody. There ought to be built up quickly a responsible public sentiment. The people ought to know what is to be done with their vessels.

The question is one which every manufacturer should seriously consider, make up his mind about, and express his opinion. The seas are the eternal mother of prosperity and have been since man existed. The time has come when America must use the waters, capitalize them, make them her

servants, even as they were her servants in the early days of the Republic.

Public ownership and control is extravagant, inefficient, destructive of initiative, and not calculated to produce the results desired. The marine must, sooner or later, be privately operated. The problem is how economically to make the transfer to private ownership under conditions which will assure efficiency and the development of new trade routes.

AMERICA NEEDS AN EMETIC.

WHIO are the men who seek to poison the well springs of Americanism? Whence comes the demand for confiscation of the wealth of the country? What is the proletariat that demands the subversion of the Government and the substitution for it of soviets and associations of fanatical cutthroats? What is the origin of the rumbling which many persons fear foretell the downfall of society as we know it, the extinction of the bourgeoisie, on whose dead bodies will tramp in triumph the toiling millions, confiscators of wealth and masters by right of brawn of everything on the face of the earth?

We print elsewhere the names of persons arrested by agents of the Department of Justice in the great raids on November 7. The orthography is the most eloquent we have ever known. Each name is reminiscent of haunts and habitats known to American children only in their geographies. They are consonant names, names that spring from territories of oppression and depression; names impregnated with nihilism and anarchism, as it were; names of distress, names from proletarians that have crept on all fours with the beasts of the field; names of minds bred in the doctrine of animosity to all government; names that smell of generations of tyranny; names of a civilization so far removed from that known in America that no tape line can bring them together; names which have become familiar in the history of struggle in the Old World, of barbarous effort to escape from a barbarous civilization, names of a social status that was born in revolt because it had a yearning for what America had already achieved.

The orthography of revolution is no more alien to the American vocabulary than is the "revolution" alien to American traditions, institutions, purposes and hopes.

These generally ignorant but class-subtle emissaries of hate, such as are guilty—for one has been tried—are the advance agents of chaos. They stalk their prey in the foreign settlements of the country; they lure into their camp, now and then, some weak-minded natives; they preach the wiping out of debt and the confiscation of wealth; they offer to the American Eve the apple of sovietism in exchange for an Eden.

The names we print are of those arrested only in a few cities. There are more than 60,000 other dangerous Reds at large, spreading disease germs, according to the records of the Department of Justice.

We believe in the old adage that an ounce of prevention is worth a pound of cure. The way to get rid of this foreign disease is to get rid of the aliens who spread it. Their touch is death. Let them go back into their poverty-stricken areas and preach desolation if they wish, but let them understand that they have no liberty to do so here. Expel them, drive them out, get rid of them! They are subtle, mischievous, a menace to free government, promoters of unrest, emissaries of the devil, serpents quoting Scripture.

When the American laboring man fully understands who these people are who have been luring him into forfeiture of his unrivaled position among the laboring men of the world, they will be less lenient than the Government has been. It is essential for the protection of labor and all classes, rich and poor, that the melting pot should belch out this indigestible mass of alien anarchy. America needs an emetic!

IS TAX EXEMPTION OF CHURCH PROPERTY WISE?

The New South Farm,
W. A. Wadsworth, Proprietor.

Prattville, Ala., November 10.

Editor Manufacturers Record:

I have just subscribed to the MANUFACTURERS RECORD. I am highly pleased at your editorials. They are full of common sense, but in plain, clear language.

However, you will not expect all of your readers to agree with you in every position you take. I think you are off on your article in favor of taxing the churches. The churches' property represents a volunteer tax of part of the people that relieves the State of that much taxation. The ministers of the Gospel are supported by part of the people, and all the people are benefited by the Gospel. The churches' schools are supported by part of the people, yet every institution of learning receives right ideas reflected from the institutions of learning supported by religiously inclined people.

All the people are taxed to support the public schools. The church people are taxed in common with the others to support public schools, yet they voluntarily tax themselves an extra amount to support the church school of their denomination to which they send their children, and thereby relieve the State of the burden of educating their children after they have paid for this privilege in taxation.

As much sense as you show you have on other subjects, I believe you will reverse your opinion on this one subject after full consideration.

W. A. WADSWORTH.

Oshkosh, Wis., November 27.

Editor Manufacturers Record:

The writer was greatly disappointed to hear of your advocating the taxing of church property, and I am sure you haven't given the matter sufficient thought.

My plan would be the reverse, to make the non-church-going people help support the churches by having the State appropriate an equal amount of the contributions of the congregation for church operation.

It is a shame that only the loyal church-goers are called upon to support the churches wholly while the slackers receive all of the benefits without contributing their share. Now to tax church property means a further burden on the present church supporters by relieving the tax on others, and it further encourages the building of the cheapest style of buildings and using the lowest-priced property to save taxes—think of it—for the house of God?

I am sure you do not realize that your American Government would be in a sad way without the moral encouragement given out by religion, and that if our Government hangs together it will be because religion has held it together. There is one church—the Catholic Church—which will stick to the last man for our present form of government, which fact is not sufficiently appreciated by the masses; still they are double taxed all their lives, and is this fair?

L. J. MONAHAN.

No one can more highly appreciate, to the extent of mental ability, the value of churches to all civilization than the MANUFACTURERS RECORD.

If churches were blotted out, civilization would be blotted out.

The Bolsheviks cry out for the destruction of all churches and synagogues. They want no God—no religion—and that is one reason why Bolshevism must be opposed to the utmost extent of human power.

But none of these facts in any way whatever, in the view of the MANUFACTURERS RECORD, justify the exemption of church property from taxation. The State has no right to support religion of any kind. The church of the living God has no right to accept a bonus from the State. There is a movement in England at present to abolish the State church, not from any lack of appreciation of religion or of the work of churches, but because a State church is in itself an anomaly and compels people of one denomination to contribute to the support of another denomination. The Church of England is a great institution, but it would be better for church and State and all religious activities if the Church of England was not distinctly a State institution supported by the State.

Christianity is abundantly able to stand alone. Its follow-

ers have no right to ask for contributions for its maintenance from the civil government. Religion deals with man's relation to his Maker. The State has no right to come between the individual soul and God. As a Divine institution the church is placing itself under an obligation to the civil power when it accepts financial help from the State. Secular education and religion are entirely separate things. One is secular and one is Divine. If a church accepts freedom from taxation, there is no reason whatever why the State should not gradually increase the bonus thus given and eventually from time to time vote directly out of its treasury cash for the maintenance of churches.

If a church is willing to accept \$1 or \$1000 by freedom from taxation, it logically could not refuse if the State should vote to give it a bonus of \$1 or \$1000 or any other amount as an additional sum contributed out of the cash in the treasury. Mr. Wadsworth's suggestion that the maintenance of church property represents a voluntary task on the part of the people, which relieves the State of that much taxation, would seem to indicate that if a part of the people that supported churches did not do so, then it would be incumbent upon the State to support churches. It hardly seems possible that Mr. Wadsworth or anyone else should advocate such a plan.

We believe in the absolute separation of church and State. The church has no right to ask anything from the civil government except legal protection guaranteed by the law to all property and people. It should not be under any obligation to the State. It should stand as the Divinely appointed power of the Almighty to do His work on earth, and church members should recognize that if they tripled and quadrupled and quintupled their subscriptions for the maintenance of their churches and their own denominational schools, they would still do far less than they should do in recognition of the supreme blessing to them of the work which the churches represent.

Though Mr. Wadsworth, in his letter, says he hopes the MANUFACTURERS RECORD will revise its opinion on the subject of exemption of church property from taxation, we may state in reply that this is not a hastily-formed opinion. It is one which has been held by the writer for a great many years, and the more study he has given to the subject, the more deeply he is impressed with the fact that no church has a right to accept a bonus from a State, whether it be in the shape of tax exemption or of cash direct from the treasury.

Mr. Monahan's suggestion that the non-churchgoers should be taxed for the maintenance of churches is the logical outcome of the exemption of church property from taxation. We presume Mr. Monahan's last statement, to the effect that the Catholics are double taxed, is based on the maintenance of their parochial schools while paying taxes for public schools. If offered as an argument, it scarcely needs any reply. All religious denominations should support their denominational schools as a part of their religious work.

SOUTH GIVES WONDERFUL DEMONSTRATION OF WEALTH AND CONSECRATION.

THE prompt raising of nearly \$100,000,000 in a campaign for \$75,000,000 by one religious denomination in the South for missionary and educational work marks a distinct epoch in the history of the South and of the religious life of the nation. In the first place, it is by far the largest amount ever raised by one religious organization in one section, and thus it sets the pace for all time to come to stimulate other denominations to similar or to greater achievement. In the second place, it shows to the people of the South their own wealth and power, and thus quickens the latent energy of every man and woman in that section. It also gives to the whole world a wonderful illustration of the South's vast potentialities in

money and in consecrated men and women, who realize their responsibilities to the world. No forward movement the South ever made before has had such a tremendous influence for its good, for the good of the nation and of the world as the mighty campaign which has stirred the whole South and caused such universal discussion in secular papers of the great movement.

We trust that every other denomination will go forward in similar campaigns and thus center the thoughts of all the people upon religious activities as the only salvation from the spirit of turmoil and Bolshevism.

TEACH ECONOMICS.

AMONG employers there is universal reprobation of employees, particularly union workmen, who seek more pay for less work, because they show ignorance of economics. As a group we cannot have more than we produce, and if one class of men secure more than the equivalent of what they produce, it is merely at the expense of other classes. According to their intelligence and opportunities, employers are more to be reprehended than employees. In the case of the former it is certain that "they ought to know better."

A glaring example of ignorance on the part of manufacturers was the cry raised upon the signing of the armistice that now the United States must hasten to "build up" an export trade, when it was a simple economic fact that we were rich and the rest of the world poor, so that in order to export goods it was necessary for us to extend very long-term credits or else import goods. We made no effort to do either of those things while Europe was forced by stern necessity to buy our goods. The result is an exchange situation that makes the British buyer pay a 17 per cent premium on American goods, a French buyer 73 per cent and an Italian buyer 114 per cent. These premiums are an added cost to the foreign buyer, and the American seller does not get a cent of the money.

At the very time it was being preached that the United States should "build up" an export trade, it had a much larger trade than could be supported. This unfortunate movement in the exchange rate came months afterwards.

Workmen show an ignorance of economics, but they are not alone in their ignorance. Both workmen and employers should be taught economics. The present trades-union movement is full of economic fallacies. If we assume for argument that the trades-union claim is correct, that the unions secure better wages and working conditions than unorganized workmen have, then the 15 per cent or thereabouts of the workmen that are organized and render less service to employers than their wages should pay for are preying upon the other 85 per cent of the workmen who are unorganized. Yet the trades-union movement wants to take in all workers. Unionization of the iron and steel industry was undertaken at the June, 1918, convention of the American Federation of Labor, with the plain admission that the great open-shop industry stood as a bar to the further progress of unionism in any direction. If unionism should spread until 100 per cent of the workmen were unionized, upon whom could they prey? What capital retains after it has made all its wage disbursements would amount to very little if the entire amount were distributed among all workmen.

Economics should be taught everywhere, not the pure science, but applied economics. The science is complicated, the application simple. One may study psychology for years in college courses, wading through the great mass of fundamentals, and then have only a few weeks of applied or practical psychology. A psychologist recommended to a large department store that it instruct its salespeople to say, politely, "Will you take this with you (slight pause) or have it sent?" The store saved thousands of dollars a year in delivery cost. If you like, don't call that "psychology," call it common sense. Teach economics not as an abstruse science, but as common sense.

Teach it in the public schools. Something taught in the public schools that is really worth while does not have to wait a generation to get into the working world, for many children carry the matter home, asking questions of the older members of the family and telling what they have learned. Require that economics be taught in the high schools and be made a part of every university course. In all this, require that the thing to be taught, not for the purpose of making the pupil able to teach it or write books about it, but for the specific purpose of making the pupil a better citizen, a more useful member of organized society.

Teach the simple moral fact that one is not entitled to receive from society more than he gives society; that if a man is a bricklayer, he must lay enough bricks in a day to make the work equal to the work done by the tailor, the baker, the potato grower, whose product he buys with his day's pay; that the job and the man are of equal importance, the capital or the system that provides a job just as necessary to organized society as the man who fills the job.

Bemoans American Slackness in Deporting Bolsheviks

L. E. MORGAN, Smith & Morgan, Real Estate, Dothan, Ala.

A Washington correspondent of the New York Times recently called attention to the fact that there are in this country at the present time, being published by anarchists and I. W. W.s, 22 foreign language newspapers, and that they have just recently added two more, these papers being published in Finnish, Croatian, Russian, Jewish, German, Hungarian, Spanish, Italian, Swedish, Bulgarian, Polish and Lithuanian; we read further that these papers are being used to spread the following propaganda in the United States:

Capture of all products and means of production.

Liberation of all political prisoners.

The blowing up of all barracks.

The murder of law-enforcing officials.

The burning of public records.

Destruction of fences and all property lines.

The destruction of all instruments of indebtedness.

The statement is also made that of the 50 or more anarchists and I. W. W.s arrested last spring in the Seattle and Spokane affair, only about 10 have been sent away, and the remainder are still here in this country.

If these things had been handled properly, we would probably have had no steel strike, coal strike, nor the present extremely menacing conditions in this country as the result of propaganda carried on by these foreign newspapers in this country.

What in the world does Congress and the Administration mean by allowing these things to go on in this way? More and more I realize what a terrible loss it was to this country when Theodore Roosevelt died.

If This Could Be Done, What a Change We Would See

J. M. BRENNES, Secretary-Treasurer Gray Knox Marble Co., Knoxville, Tenn.

Enclosed we hand you copy of telegram sent to President Wilson by our Mr. J. B. Jones, which we think covers the situation very thoroughly.

Following is copy of the telegram:

"Knoxville, Tenn., December 1, 1919.

"President Woodrow Wilson,

"Washington, D. C.:

"If you can get Congress to pass a law conscripting every able-bodied man in America between the ages of 21 and 60 to work not less than 48 hours per week, and send a card at the end of each week to the department showing what he did, you can put the country on a productive basis that will not only settle the unrest, but will increase production sufficiently to greatly reduce the price of all commodities.

J. B. JONES."

James B. Hedge, Hedge Publishing Company, Athens, Tenn.—I am enclosing subscription renewal to the MANUFACTURERS RECORD for ensuing year. I enjoy reading your paper very much and only wish we had more with the ability and independence displayed in its columns.

The President's Mind Is Vigorous, But His Participation in Affairs Is Necessarily Limited

By P. H. WHALEY.

Washington, D. C., December 8.

The psychology of politics is subject to no rules. It is a strange twist of events that a conference between the President and Senator Fall, lasting three-quarters of an hour, has been generally heralded by the press as conclusive evidence of the fact that all is well in Washington and the President firmly seated in the pilot-house.

It has been notorious in the capital for weeks that the Government was without an executive head. This was manifesting itself in a confusion of council and timidity of administration which combined to interfere seriously with the functioning of the Government.

In responsible circles there was little, if any, belief that Mr. Wilson was without full possession of his mental faculties. It is true that a small group of Senators were declaring that the President was suffering from brain trouble and a cloudy mental vision, but they made little impression. Even bitter opponents of the Administration knew that Mr. Wilson retained his clarity of thought and his remarkable analytical ability. Their complaint was not that his mind lacked the power to function, but that the conditions of his illness were such as to preclude the possibility of his taking an active part in deliberations. It was notorious that he was inaccessible. Members of the Cabinet had been unable to confer with him. Other equally important members of the Government were unable to approach him. Decisions reached in the Cabinet were admittedly tentative, subject to overturn if brought to the attention of the Chief Executive. Labor leaders were saying that Government policies were effective only because the President had not been informed of them. They asserted that a change of program could be expected so soon as the President recovered.

The confusion resulting was extremely great, and it did not require a close observer to note the slowing down of the governmental machinery.

For six years the President has been the one initiatory force in Washington. He has not only initiated policies, but he had done his own deciding, generally with only the most casual reference of questions to the Cabinet. It has been, in other words, a Cabinet of subordinates and not a Cabinet of co-executives. When suddenly confronted with the necessity of running the Government, such a Cabinet necessarily evinced limitations.

The tension had already become very great when Secretary Lansing appeared before the Foreign Relations Committee of the Senate and blandly stated that he had not conferred with the President at all about the Mexican situation, and had not consulted with him about anything else. In fact, he gave the impression that he had not even seen the President since August.

The nation had just gone through one war costing billions of dollars and standing the country on its head. Another war seemed more or less imminent. Republicans no less than Democrats were anxious to avoid this second war, if it could be done without imperiling American honor and American interests. Congress was considering a resolution calling for the breaking off of diplomatic relations with Mexico and emphasizing the power of the President to take any course requisite to protect the national interests.

Senators were amazed, therefore, at Mr. Lansing's statement, and they suggested that it was proper one of their members should have a talk with the President himself. It was a natural request to make. By some strange twist, however, the impression was given the country that Mr. Fall was a lunacy commission to examine Mr. Wilson. That was pure rot. Mr. Fall, as was to be expected, found Mr. Wilson with his mind as clear as a bell, but in a very weak physical condition. He lay in bed, covered except for his right arm, in good spirits, but giving every evidence of the severe illness through which he is passing.

The interview established, to the satisfaction of those who doubted, the mental vigor of the President, and it also established the fact that he is an ill man, quite weak. It is unfair that he should be burdened with affairs of state, and his physicians, it is understood, while permitting him to give more attention than formerly to important matters, have no intention of allowing him to take up the reins of government again at this time. He will con-

tinue to do what he has been doing—that is, perform such functions as it is essential he should perform, and no others. He is not accessible to important visitors, and it is understood that he will not be for some time to come.

It is necessary to go into the President's condition somewhat fully, as above, because of the air of mystery which has surrounded his illness, and also because of the erroneous impression which has been given the country by the press. There is universal admiration of the heroism of the President in his devotion to duty, even under such difficult handicaps, but it is not fair to the President or to the country to give the idea that he has his finger on the pulse of government and is physically able to direct the machinery. He is not, and the fact has been so often stated by his physicians and is so obvious from even the most casual study of passing events that it is remarkable any other idea should prevail.

The truth is that the Government is seriously handicapped by the illness of Mr. Wilson, as was inevitable, and the solution of grave problems is, to put it mildly, retarded by his inability to bring to the consideration of such problems his well-known directness and perspicacity. Decisions require an executive authority.

It is not a peculiar thing that the Government should be seriously inconvenienced by the long illness of its chief. It is remarkable that the President's friends should try to make it appear that there has been no such inconvenience, and that there is none now.

There have been a number of nervous breakdowns in Washington lately. The fact is that the threat of death lies over any man who undertakes in these days to handle the enormous volume of duties involved in the holding of the Presidency. Some relief must be given, and that most generally suggested is the adoption of a constitutional amendment permitting the President to assign some of his duties to the Vice-President.

Democrats and Republicans have been studying the debate on the Presidential Succession Act, enacted during the first Cleveland Administration, and the opinion at that time seemed to be general that if the Vice-President once succeeded to the Presidency on account of the incapacity of the Chief Executive, there was no way in which the latter could resume his duties. Another remarkable conclusion reached was that the Vice-President is the judge of when the President is incapacitated.

There is agreement that there ought to be some method by which the President can call in the Vice-president for emergency service, in much the same way that, in many States, the Lieutenant-Governor becomes Acting Governor during the absence from the State of the actual Governor. Had there been such a provision, it is altogether probable that Mr. Marshall would have been conscripted for duty before this. To compel a sick President to remain in harness is not a good thing, either for the President or for the country.

But the Fall interview has been of some value. It has demonstrated completely that the President's clarity of vision is not impaired. The Government is not in a tragic situation; it is merely inconvenienced and running on a slow schedule.

Large Apartment-House Planned for New Orleans.

New Orleans, La., December 4—[Special.]—The largest apartment-house in New Orleans will be built within the near future by the Lee Circle Apartment Hotel Co. The architects are Burton & Bendersnagel. The total value, counting the site, will be nearly \$1,000,000. There will be 200 apartments of two, three and four rooms each.

The structure will be erected at St. Charles street and Lee Circle, where business and residential sections meet. The building will be in colonial style, six stories high, the lower floor divided into a dozen store spaces. The lobby will be a glass-enclosed porch 20x120 feet, overlooking a spacious lawn and garden. There will be a restaurant and a roof garden. Each apartment will have an individual porch, and be supplied with modern conveniences.

The present development is the outgrowth of the acute housing famine. It is stated that building operations will begin in February, and the structure will be finished in November.

Amazing Prosperity Shown by Banking Statistics at New Orleans

LUMBER, NAVAL STORES AND PRODUCTS OF THE SOIL GIVE BASIS FOR VAST INCREASE
IN WEALTH AND PRODUCTIVE POWER.

By THOMAS EWING DABNEY, New Orleans.

The amazing prosperity of New Orleans and Louisiana is shown in the growth of this city's banks.

Bank clearings of New Orleans are greater in a day now than they were in a week five years ago. Bank resources of New Orleans have increased from \$123,000,000 on December 31, 1914, to \$236,000,000 on June 30, 1919, and \$273,699,100 on November 28. On December 31, 1914, the total deposits in New Orleans banks amounted to a mere \$90,000,000. Now New Orleans has several banks with more than half that much each. On June 30 of this year, ending the most prosperous fiscal year in the banking history of the city, the deposits totaled \$136,000,000. According to statements published, seven of the ten banks of New Orleans on November 17 had deposits totalling \$214,041,608. Thus the increase has been more rapid this year than it was from 1914 to 1919.

Louisiana, like other Southern States, is a producer of raw material, and New Orleans is a handler of raw material. The principal staples are cotton, sugar, lumber, naval stores and rice. Of course, there are many other sources of wealth, such as sulphur, oil, fisheries, salt, etc. But this is an indicative analysis, not a definitive compendium of the economic situation. For the same reason, the foreign trade of New Orleans will not be discussed in detail.

The dollar today, according to the United States Department of Labor, will buy only 50 cents' worth of goods, as compared with the dollar of 1914, before the Great War began. If, therefore, wealth was measured only by the number of dollars, the doubling of our bank resources would only mean that we are as well off as we were in 1914. But here enters the element of confidence, credit. And there is no comparison between the producing energy of our wealth today and of five years ago.

Take cotton, for instance. Who does not remember the frenzied appeals in 1914 to buy a bale at 10 cents? Now cotton is selling at about 40 cents. The planter gets four dollars now for one dollar he got then. Allowing for the depreciation of the dollar, he is twice as well off today. And the crop isn't short. Louisiana produced 541,000 bales during the year ending July 31, 1919, as against 422,000 bales in 1914. In 1918 it produced 655,000 bales. Bigger crops plus bigger prices—it's wonderful prosperity! The man who goes to the bank with 100 bales of cotton now gets credit for \$20,000; five years ago he would have been glad to get \$5,000. This means greater productive power, for the bank is able to lend that much more money.

Then there is lumber. In production, Louisiana ranks second in the United States. The total cut in 1916, the latest estimate available, was 4,200,000,000 feet, board measure—about one-eighth the production of the United States. And Louisiana's payroll is the largest—with nearly 50,000 men. Yellow pine lumber in 1914 averaged \$14 to \$15 per 1000 feet at the mills. Now it is averaging \$45 to \$50. Cypress has gone up in proportion, and so have the hardwoods. In other words, the value of this great industry has been multiplied by three.

In rice, too, the State is producing a heavier crop and getting more for it. Louisiana's production in 1914 was 10,802,000 bushels, or nearly half the total rice production of the United States. This was sold at an average price of 93 cents a bushel on the farm, half a cent more than the average for the United States. Prices for standard grades on the Board of Trade ranged between four and four and a half cents a pound.

In 1918 the rice production of Louisiana had jumped to 17,980,000 bushels. This brought an average price of \$1.93 a bushel on the farm, or three cents more than the average price for the entire United States. Average grades sold on the Board of Trade for 10 cents a pound.

Louisiana's estimated rice crop for 1919 is 19,822,000 bushels. The Government has not yet compiled the average farm prices, but average grades are selling on the Board of Trade for 13 cents.

Thus Louisiana's rice production has nearly doubled within

the last five years, and it is worth nearly three times as much. Production multiplied by value gives a sixfold greater wealth in this one crop.

Louisiana's sugar crop is short this year. It is estimated that the total yield will be only 138,000 tons of sugar, as compared with 242,700 tons in 1914, 137,500 tons in 1915, 303,900 tons in 1916, 243,600 tons in 1917 and 280,900 tons in 1918. But the price for plantation grades will be 18 cents a pound, as compared with nine cents a pound in 1918 and three cents a pound in 1914. The total value of the sugar crop on the plantation, counting all by-products, in 1918, with a production 142,000 tons greater than this year's estimate of sugar tonnage, according to Field Agent Dennee, was \$58,237,592. It is true that many planters this year will suffer a great loss, but the fact that prices are double what they were last year and six times as great as they were in 1914 will help account for the growing wealth of the State.

The production of naval stores is a large industry in Louisiana. This production has increased steadily from 40,000 barrels of turpentine in 1914 to 58,000 in 1918 and an estimated 58,000 for 1919. About three and a third barrels of rosin are produced for every barrel of turpentine. Louisiana's production increased, while the production of the rest of the South fell off, the total crop from 1906 to 1914 averaging 670,000 barrels of turpentine, while the estimate for 1919 sees only 324,000 barrels.

In 1914, turpentine averaged 41 cents a gallon and rosin \$4.29 a barrel of 280 pounds. In 1918, turpentine averaged 59½ cents a gallon and rosin \$12.33 a barrel. The prices from April to October this year have increased from 71 cents a gallon and \$13.80 a barrel to \$1.58 and \$19.15. In other words, production has increased 45 per cent and prices 400 per cent.

So, too, one may trace the rising values of the various products of the State and of the industries, which in 1909 yielded an output worth \$223,949,000, a 101 per cent increase in 10 years. Later figures are not available, but that the increase has been tremendous in the past 10 years no one can doubt.

New Orleans' foreign trade has multiplied by three. For the year ending June 30, 1914, imports here amounted to \$89,382,621 and exports \$193,839,961; total, \$282,222,582. For the year ending June 30, 1918, imports here amounted to \$117,417,506 and exports \$381,330,282; total, \$498,747,788. For the nine months ending September, 1919, imports here amounted to \$129,762,496 and exports \$436,074,878; total, \$565,837,354. While this business has been interrupted by the longshoremen's strike, it has been increasing so rapidly since September that experts feel safe in predicting a total this year of at least \$700,000,000.

Tonnage figures are not available; but this tremendous increase is not explained by the increased value of the goods. This is proved by the fact that 15 new steamship lines have been established here, giving New Orleans a total of 58, and more are planned. For every ship that came to this port in 1914, there are two here now. To meet the growing port needs, the Dock Board has announced that it is planning a \$5,000,000 wharf expansion.

The city's population has increased by at least 70,000 since 1914. This represents the new labor necessary to operate the new shipyards, the new ship repair plant, the new terminals and the new industries that have been established here during the last five years. And many Northern and Eastern establishments have opened branch offices in New Orleans.

MERCHANTS and manufacturers of city and State report an increasing volume of business. They are operating on the same margin of profit as formerly, and their increasing volume of profit and higher prices give them a greater net profit.

There is no unemployment for those who want work. Labor is well paid. It is spending more, and it is getting more of this world's goods.

Inflation? To be sure. But the fact remains that New Orleans and Louisiana are getting a greater return than can be explained by inflation. And the business outlook is declared to be entirely favorable.

High-Priced Sugar, Preceded by a Building Famine, Working Wonders for Cuban Development

By E. T. HOLLINGSWORTH, JR., Editor "Trade Winds."

Jacksonville, Fla., December 4.

High-priced sugar, preceded by a building famine in Cuba, has caused that prosperous little isle to begin a development such as has never before occurred in its history, and for the past 10 months the railroads and every kind of vessel that could carry a cargo without sinking have been dumping building materials into her various ports much faster than they can be unloaded or transported inland to the ultimate buyers.

Although Cuba suffered little from the world war, she did her part as best she could, and the fate of many Cuban fighters across the seas brought home to their people the horrors of the conflict. The greatest suffering, if suffering it might be called, is said by Cubans to have been the sudden cutting off of shipments of necessities from both this country and Europe, and the halt in building and agricultural development during the war. This, they claim, was a severe handicap to the growth of their country, and as if to make up for the two or three years of inertia the country is a hive of activity.

During a recent visit to the Pearl of the Antilles, the question was asked of several large buyers of lumber, "How long will the enormous demand continue," to which they replied, "Cuba is today over 40,000,000 feet of lumber behind her usual consumption, in addition to what she has been forced to do without for three years." In other words, the present shipments of lumber to Cuba will continue up to 1921 before the island will get on a pre-war basis of consumption.

This basis of lumber may not seem extra large to the average layman, but take into consideration the fact that this deficit is being dumped into the island at the rate of 6,000,000 to 8,000,000 feet per month, most of which is produced in Florida, Georgia, Alabama and Mississippi, while a small portion is coming from the Pacific coast, it would seem that the end would soon be reached and that the lumber yards would be filled to overflowing. But this is not true. The lumber is being used as fast as carpenters can cut it into building materials, and still the demand goes out for lumber and more lumber.

On all sides homes, factories and business houses are being erected. In the city of Havana alone there are today some thousand houses under construction or nearing completion at a cost averaging \$50,000 each, and some are costing much more. Of the business houses going up there are two big banks erecting buildings in Havana, one of which will be eight stories high and used as an office building and banking-house. The Manzana de Gomez, started some years ago, covering an entire block and five stories in height, is now being finished, work having been stopped on account of the war, and although the workmen are busy putting in elevators and stairways, the offices have all been contracted for and many are in use.

The President's Palace is also nearing completion, an extension to the Malecon of about two miles is now under way, and the watering place at Marianno is planning a great development for the coming summer, which shows that the Cuban is looking out after his pleasure as well as his business. Although Havana has several good hotels, they are entirely inadequate to take care of the large influx of people, and in order to render some little assistance the Hotel Seville is building an extension of six stories, which will soon be completed.

But with her building growth Havana has not looked out after her wonderful water-front possibilities. Although she has ample room for the construction of docks and terminals, the present facilities are little more than a farce, and the congestion of freight of all kinds is terrific. Some years ago the Government started a system of reclamation which included an octagonal shaped concrete dock capable of taking at least 12 ships at one time. Today that dock is just where work stopped during the war, nothing having been completed except the concrete bulkheads, while the entire interior is a mass of mud and water.

It seems queer that this development is not being carried out as planned, taking into consideration the great amount of business going to this port, but there is a ray of hope in the fact that once it is ready for occupancy a vessel will not have to discharge

cargoes in the bay onto lighters, but can enter and clear within 6 to 10 days, instead of from 15 to 25 days as at present.

In writing of Cuba it is absolutely essential to speak of sugar—that magic word that somehow does not get results in these United States at present. But the reader may find solace from the fact that Havana is also sugarless at present, unless one wishes to buy the sweetening in large quantities and at a price of from 16 to 20 cents per pound.

On November 5 there was plenty of sugar in Havana and other places in Cuba. On November 10 it had all disappeared—somewhere, somehow. On the former date a well-known wholesale dealer entered Havana for the purpose of buying sugar—something like 1,000,000 pounds of the granulated kind. He had a permit from the Sugar Equalization Board in New York allowing him to bring it into the United States—at a price, but as this price was far too low in Cuba, he also secured a permit from the Department of Justice to pay a slightly higher price, his entire community being sugarless. Upon arrival in Havana he made his wants known through the usual channels—the brokers—and he soon had secured several verbal agreements covering the 1,000,000 pounds.

Then something happened. Nobody would make deliveries. Sugar went from about 11 cents to 13 cents per pound. The wholesaler conferred with friends and others, also with his offices, and finally decided to close at the higher price, believing that his customers would realize that he was not profiteering if he charged them a higher price for the sugar, as he was being forced to pay more than originally expected. He finally secured one or two cars, about 60,000 pounds, and far from the 1,000,000 pounds contracted for, at the new price, so he returned home to the U. S. A. A week passed and Mr. Wholesaler appeared again upon the scene. His sugar had not shown up, and his customers were about to raid his place of business, so he decided to wait in Havana until he saw it loaded on the cars and placed on the ferry before he returned.

Then another wholesaler published the fact far and wide that he was going to buy 20,000,000 pounds and break the sugar famine. He sent his emissaries to Havana; then sugar disappeared. The retail stores ran out and could buy none. The papers were filled with stories of a "sugar famine in Cuba," which brought the efficient Cuban Government into action. They investigated the situation and found thousands of sacks being kept in storage, but none for sale. This was also published and the local situation somewhat clarified, but sugar was from 15 to 20 cents per pound in small quantities.

Again the Government came to the front and advised that a certain price had been agreed upon and that sugar could not be sold above that price, but the astute Cuban merchant was not to be caught, and he kept the high price in vogue, merely billing the buyer with some kind of commodity to make up the difference, of course never delivering the commodity.

Cuba has plenty of sugar, but the Sugar Equalization Board will not allow Cuban refined sugar to come into the United States over a price of around 12½ cents; however, they are allowing American sugar producers to sell at a much higher price, while the public is the "goat," as usual. If there were plenty of sugar in this country there would be some reason for endeavoring to keep foreign cheaper sugar out, but somehow the public's way of reasoning don't go very far.

In connection with this sugar question it might be well to call attention to a statement made by the master of the German ship "Hans" while in Havana recently. This was the first German ship into Havana since 1917, and of course caused some mild interest, and, as Germany produces some beet sugar, the question of her competition with Cuban sugar came up. The captain stated that the German beet crop this year would hardly supply Germany and Austria, and she would have none to sell elsewhere, but that they were making plans for a greater crop next year.

According to the Government's estimate, this year's Cuban sugar crop will amount to some 4,000,000 tons. Of this amount 1,250,000 tons have already been sold to private buyers at around 12½ cents for raws, which will make granulated sugar sell much

higher when it comes on the market. During this brief speculative period the Government at Washington was discussing the advisability of continuing the Sugar Equalization Board, whose duties were to buy up the entire Cuban sugar crop, and unless they have gotten busy within the past week they will find that at least one-half of the crop has already been sold to outside parties, so the Equalization Board's functioning will amount to very little in reducing the cost of sugar.

It has been stated that England has bought much of the next crop, but this could not be verified in Havana, as the big sellers declared their sales were to Americans.

Getting back to the original theme—that of development—Cuba is not confining her activities to importing lumber, but her purchases cover a wide and varied field of commodities. Cement is a great item, and hundreds of thousands of barrels are being shipped into the country. Steel rails, crossties, sugar bags, twine, cotton goods, canned goods, dried beans, cattle, hogs, horses, automobiles, trucks, iron and steel for structural steel work, and hundreds of other commodities are included among her imports, and, according to those in a position to know, these heavy purchases will continue for a long time to come.

One of the features of Cuban purchases is that 90 per cent is coming from the United States, when before the war a majority of her purchases came from England or other European countries. The Cuban is beginning to look with favor upon the American-made goods, and the American seller is meeting the trade conditions offered by Europe, which is again in his favor.

Of these great imports a majority is being carried on ships from the Southern ports, which is also something new in Cuba. Although the ports of New Orleans and Mobile have always enjoyed a good trade with Cuba and the West Indies, the close of the war found new concerns starting on the South Atlantic, which have been bidding for this business. A case in point is the Jacksonville Shipping Corporation, which operates a fleet of vessels from that port to Cuba, and has been making big strides in building up trade routes which formerly did not exist, and which many thought would never exist.

In connection with the development of commerce in the South, attention should be called to the fact that the shipping companies have always had the utmost support and assistance of the inland shipper and manufacturer, and as a result of this co-operation, whose purposes are to build up the South, there are more different kinds of commodities being shipped from the Southern States to the West Indies than ever before in the history of the country, and the list is daily growing larger.

Mining Operations Carried on in Mexico by Americans and Others in the Face of Almost Insurmountable Difficulties.

Monterey, Mexico, December 2—[Special.]—No industry in Mexico would perhaps recuperate more quickly from the protracted difficulties under which it has labored during the last several years than that of mining, if permitted to do so. This is the statement of prominent American mine owners who are now in this country investigating the situation. It is stated that the thing that is most needed to bring about a general resumption of mining and the treatment of ores in Mexico is that of a restoration of railroad transportation service. Of this there is no early prospect, notwithstanding the promises of the Government authorities that the different lines are to be rehabilitated and the necessary rolling stock added in the immediate future. Little hope is held out by men who are acquainted with the situation that this will be done. Even what little freight traffic connected with the mining and smelting industry that is now done is handled almost exclusively by the shippers themselves. They have been forced to buy or lease locomotives and cars, employ their own train crews and operate the trains at their own cost, at the same time paying to the Government or railroad owners the regular freight charges. It is a good proposition for the Government, which still owns a controlling interest in the National Railways of Mexico, now called the Constitutional Railways of Mexico, embracing more than 8000 miles of track. Of this trackage, perhaps one-half is out of commission. It is stated on reliable authority that about 75 per cent of the freight traffic of Mexico is now handled by trains that are owned or leased by shippers.

On a recent extended tour of mining districts and smelting centers of Mexico a party of high officials of the American Smelting

& Refining Co., headed by H. R. Wagner of the directing board and C. L. Baker, manager of the company's Mexico properties, it was noted by them that many foreign and native-owned mines are in operation, and that big quantities of ores are in stock in the different camps awaiting transportation to the reduction mills and smelters. They were impressed with the fact that even in the bandit-disturbed districts Americans and others are braving possible dangers to themselves by remaining at the mines and keeping them going. It is pointed out as characteristic of the brave and adventurous spirit of these Americans, both owners and employees, that they may be forced to temporarily abandon their properties because of a bandit or revolutionary raid, but in practically every case they return to their work almost on the heels of the departing freebooters. In many instances these intrepid foreigners have remained with their properties through scenes of carnage and loot that went on around them. It is stated that they have evidenced this hardihood, this defiance of bloody and unlawful acts in the face of the fact that they know that their own Government cared nothing of what became of themselves or their properties. Under all of these most trying difficulties they have stood it out alone. There are many Americans of this stripe in Mexico. They are found today, living an almost isolated existence in the mining districts of the bandit-ridden States of Chihuahua, Durango, San Luis Potosi and Zacatecas. They are asking no protection from the United States Government, because they learned long ago that to do so was useless.

Mr. Wagner and other American Smelting & Refining Co. officials are said to have visited all of the company's smelters in Mexico, even including the ones near Chihuahua and at Velardena, State of Durango. The company plans to greatly increase its operations in this country, and as a further solution of the transportation problem it will add several freight trains to those which it already has in operation.

At Santa Barbara the American Smelting & Refining Co. has resumed the operation of its Tecolotes mines. It is building a great ore-concentrating plant at the Veta Colorado mines. It has also purchased the famous Tajo silver mines, in the Parral district, from James I. Long and Jose Maria Botello.

Large importations of dynamite from the United States are being made by mine owners for use in operating their respective properties. In some of the districts the shortage of this explosive was becoming acute. One of the first things sought for by bandits and revolutionists when they raid a mining camp is dynamite, and enormous quantities of the explosive have in times past found their way into the hands of these elements in this way. It was stolen dynamite largely that was used in blowing up railroad bridges and tracks and in bringing general destruction to physical properties throughout the country.

How much silver, gold and copper bullion has fallen into the hands of freebooters of Mexico during the last several years will be probably never known. In the aggregate the amount is known to be enormous. According to current report, big stores of precious metals are cached in the mountains and more remote districts; the bandits who stole the valuable property are only awaiting the time when they can dispose of it without incurring risk to themselves. It is not improbable that in the years to come legends and stories will be woven about this hidden wealth, the same as are now told of the buried silver and gold of the Spaniards in the days of the conquest of Mexico. Stories are already in wide circulation of the vast stores of silver and gold bullion which the redoubtable Francisco Villa is alleged to have hidden in the mountains of Chihuahua and Durango. That Villa obtained from time to time big quantities of loot from different mines is unquestioned. What he has done with this valuable booty no one outside of himself and immediate followers pretend to know. Every time he makes a sortie toward the border it is given out that his purpose is to exchange bullion for money as a means of furthering his revolutionary campaign.

Baltimore to South America.

Establishment of a steamship line between Baltimore and South American ports is proposed by the Inter-American Navigation Co., incorporated by New York steamship men with \$3,225,000 capital. It is stated that negotiations are in progress to purchase five ships from the United States Shipping Board. Moore & McCormick of New York are mentioned as representing those interested, and they will operate the line.

Remarkable New Mineral Discoveries Announced from Jefferson Island, Louisiana

IN ADDITION TO ENORMOUS ROCK SALT DEPOSITS, DIAMOND DRILL REPORTED TO HAVE SHOWN 79 FEET OF SOLID COAL—OIL AND GAS INDICATIONS ALSO ENCOUNTERED.

By STANLEY C. ARTHUR, New Orleans.

The largest rock salt mining operations on the continent are under way on Jefferson Island, in Southern Louisiana.

Natural gas and oil indications have been encountered in recent drillings there.

A solid bed of coal of good quality, 79 feet in thickness, was shown by the drill core.

These are the astonishing statements made now for the first time by J. Lyle Bayless of Louisville, Ky., a part owner of Jefferson Island, in this State.

Ever since the purchase of the old winter home of America's famous actor, Joseph Jefferson, and the announcement that the new owners were planning to convert it into a great wild bird and animal sanctuary, speculation has been rife as to what action would be taken relative to the great bed of rock salt known to underlie the properties. At the time of the purchase Mr. Lawrence Jones and Mr. J. Lyle Bayless, both prominent business men of Louisville, stated that they would merely farm the vast property, named by Jefferson "Bob Acres," after the famous character he so often portrayed in "The Rivals." The past three seasons have seen only rice-growing activities. During the war, when it was necessary to secure chlorine gas for offensive measures against the enemy, the Kentucky owners patriotically had the salt deposits examined with a view to supplying the Government with this deadly vapor. The ending of hostilities stopped this plan, but the information gained was such that it was decided to mine the salt for the open market. Engineers were engaged, additional drillings were made, the deposit of solid salt was measured as to its probable diameter. An unsuccessful attempt was made to plumb the depths of the pure sodium chloride, which was drilled to a depth of 2000 feet, and the drill was still in the salt when the work ceased, with every indication of as much salt below this point as above. This is the greatest depth that salt has ever been drilled.

"We have 300,000,000 tons of 99.92 per cent pure rock salt blocked off," said Mr. Bayless, in discussing what had been done and the plans he and those associated with him have in mind. "Not only are we going into the salt mining and selling business

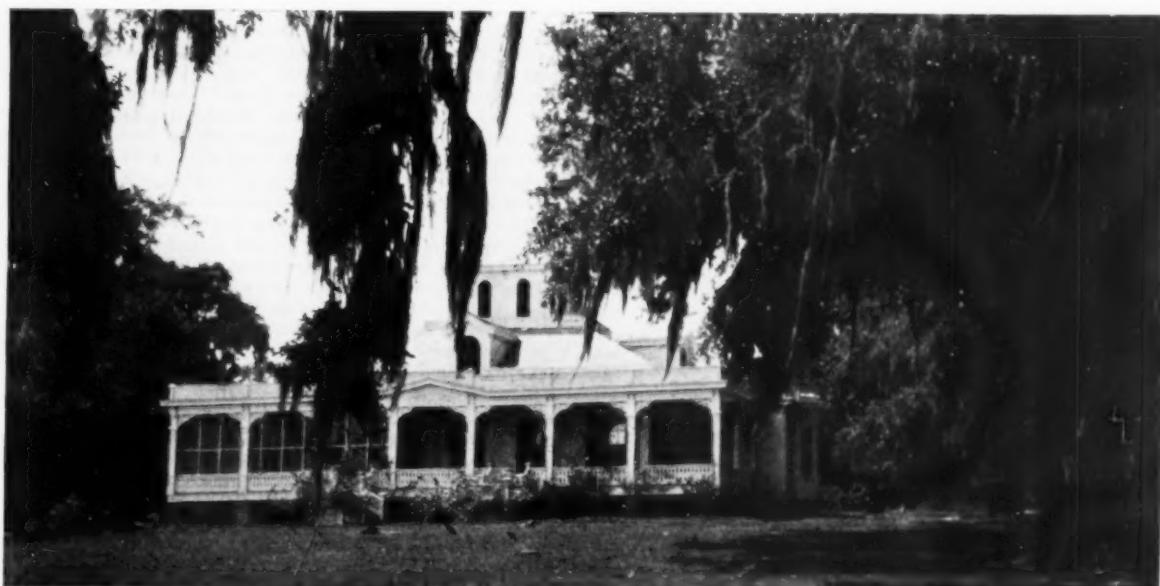
on an independent basis, but we plan to plumb the mineral resources of Jefferson Island to its very depths, for the work we have done the past six months has been pregnant of many possibilities.

"While we were drilling our first hole we encountered such a force of natural gas that the mud was blown not only out of the hole, but many feet in the air, and forced us to stop work until the pocket, for that was what we had evidently struck, exhausted itself. Then when we were 150 feet below the surface we were astounded to strike coal. This hardly seemed possible, but as the drill progressed the core delivered was nothing but pure coal, which we had analyzed and found it to be better than that of Eastern Kentucky. This strata of coal proved to be 79 feet in thickness, and was lying just 12 feet above the rock salt bed.

"We located the salt deposits exactly 250 feet from the surface of the hill just back of the old Jefferson home, and the additional drillings necessary to locate the salt for our mining operations shows that it easily covers an area of 1000 by 2000 feet. The salt we have brought to the surface ranks in purity as the best salt yet analyzed from Louisiana. It resembles the Weeks Island salt more than the Avery Island salt, because it is very fine and will, so our chemists say, make the best table salt yet offered to the market. As our salt is pure rock crystal, we will, in addition, be able to crush every kind of salt, coarse or fine, demanded by the market."

According to Mr. Bayless, the building of the shaft will be presently under way, three shifts of laborers working on it day and night, and it is expected that the actual getting out of the salt will be under way by the first of January. The shaft is to be sunk 700 feet to what will be known as the first gallery, thus making the Jefferson Island salt mine the deepest in the North American Continent, as the Weeks and Avery Island mines are only 500 feet in depth.

Associated in the enterprise are Lawrence Jones, Warner Jones and J. Lyle Bayless, and these gentlemen, having practically unlimited capital at their disposal, are planning an extensive sales campaign of their product. Nor will old Joe Jefferson be forgotten.



OLD PLANTATION HOME OF JOSEPH JEFFERSON IN LOUISIANA, UNDER WHICH AN ENORMOUS ROCK-SALT DEPOSIT HAS BEEN LOCATED.

in this strictly commercial end of the great undertaking, for Mr. Lawrence Jones, in recognition of the beloved actor's faith in the great value of the mineral storehouse underlying the home amid the moss-hung oaks he loved so well, has decided to name the refined table salt that will be placed on the market "Rip Van Winkle salt."

The owners plan ideal living conditions for the laboring force that will be engaged in lifting the solid crystals of salt to the surface and converting it into a commercial commodity. The quarters are now being built, and will have running water, electric lights, bathtubs and showers, with a commissary that will be run at cost. These grounds will be planted and each home will have its flower and vegetable garden. The quarters for the white employes, called "Cotton Bottom," will be separated from those for the negro laborers, the latter settlement being called "The Promised Land."

Bids are now being invited for the necessary machinery to be installed at the completion of the sinking of the huge shaft, and a departure from methods now in vogue in the other Louisiana mines for the production of the finest quality of table salt is that this quality of salt will be secured by evaporating the rock salt instead of crushing it. A superior product can thus be obtained.

The announcement of the Jones-Bayless concern again calls attention to the remarkable rock salt deposits of Louisiana, remarkable because they seem to be confined to the so-called Five Islands located in Vermilion and St. Mary's parishes. Although hardly "islands" in the accepted sense of the term, being separated from the mainland only by low salt marshes, these puzzling promontories, rising from a height of from 125 to 200 feet above the surface of the surrounding country, nevertheless differ so radically in character and formation from the mainland itself as to be geographically distinct and fully entitled to the "island" appellation.

The production of salt is easily Louisiana's oldest industry, for it has not only been produced more or less extensively since the day La Salle unfurled the flag of the House of Bourbon on the low-lying shores of the Mississippi River, but long, long before the white man's foot trod through the forests of Louisiana salt was used as a trading commodity by the aboriginal Indians, who secured it by evaporation.

It was not until 1862, however, that the vast rock salt deposits were discovered on Petite Anse, now better known as Avery Island, and this led to investigations being made on Belle Isle, Cote Blanche, Grand Cote (now called Weeks Island) and Cote Carline (or Jefferson Island), the others of the five islands. In 1903 the active mining of salt was commenced on Weeks Island, and these operations are still in force, as are those on Avery Island. The rock salt deposits on Belle Isle were worked for a short period until it was flooded by sea water through what was claimed to be bad mining, with a loss estimated at over \$1,500,000.

The first salt exploration made on Jefferson Island was in 1894, when Joseph Jefferson let a contract for drilling a well near his beautiful home on the top of the 75-foot hill that bears for it the name of "island." Unlike the other islands of the celebrated group, Cote Carline, as some still prefer to call it, rises out of a prairie, the sea marsh being two miles and the Gulf of Mexico nine miles away. Touching the island on the northwestern side is Lake Peigneur, a beautiful little streak of water about a mile and a half wide and two miles long, on which Jefferson spent many hours fishing. Because of this lake the early scientists decided that the lake was the crater of a volcano from which the supposed material forming the hill was thrown out, but it is now known that the hills have been formed, so to speak, by the protuberance of the great salt domes that underlie them, and latter-day scientists have decided that the salt deposit is pre-Pleistocene.

In thickness and purity the Louisiana salt deposits easily outrank any others yet known in this country. In Europe the famous Stauff deposits show only 685 feet of pure rock salt, but they are outranked by the salt wells in strata of the same age at Spremberg, near Berlin, which pass through 3769 feet of rock salt. The celebrated Wieliczka deposits of Galicia, Austria, have an aggregate thickness of 4600 feet. But this does not represent the thickness of a single mass of salt, as is the case of the newly measured Jefferson Island deposit, which is solid salt without adulteration, while the saliferous formations of Wieliczka consist of masses of salt separated by beds of clay, marl and anhydrite. The rock salt of the salt range of India, the only other deposit that can compare with the Jefferson Island bed in thickness, is associated with beds of clay, the aggregate thickness of the whole averaging 300 to 700 feet and not exceeding 1200.

Thus it would seem that the Rip Van Winkle salt, counting thickness and purity, ranks third, and possibly second, in the great salt deposits of the world. Future drilling on Jefferson Island may reach a depth that will place it as first of all the salt deposits, for the present owners announce that they will endeavor to send a hole to the bottom, "even though it take the drill half-way to China," for it must be remembered that the 2000-foot drilling did not reach the bottom of the salt dome.

Proposal to Convert Okefenoke Swamp Into a Biological Reservation.

Atlanta, Ga., December 2—[Special.]—A move is on foot to preserve, develop and utilize the famous Okefenoke Swamp, that famous 700-square-mile area lying principally in Southeast Georgia and extending a little into Northern Florida.

To this end the Okefenoke Society, a scientific organization composed of members in all parts of the country, has already engineered a bill through the Georgia State Legislature, which urges action by the United States Government in scientifically taking advantage of the many natural resources possessed by the swamp, which has been thoroughly explored and whose buried riches are undenied.

Among the reasons that will be advanced to the Government for the necessary and important work are:

First of all, the swamp is the best section in America for biological reservations, for plants and animals of every description. The Okefenoke swamp is making dyes and iron, and possibly coal and oil, as scientific experts have proved and reasoned, being a great laboratory where nature is at work producing these things. Rotting plants, the elements of the air, the dark tepid water of the swamp are some of the materials that are bringing about these natural developments.

Researches made prove that the swamp is producing sap brown and vandyke brown ores, substances from which dyes, oil, paints and stains are made, and that it is producing asphalt, which is the crude base for petroleum.

For years the United States imported from Germany, under different names, the identical sap brown and vandyke brown ores that scientific men have proven exist in the Okefenoke. Conservative estimates made place the total of these annual imports at 20,000 or 25,000 tons. The Government has cited that although Germany is not shipping these ores at the present time, it will only be the course of a few months before the crafty Germans will see the wonderful natural ore resources contained in the swamp and work to acquire the area or else try to prevent its utilization.

For a cypress reservation the swamp cannot be surpassed. In its hundreds of square miles are not only contained large amounts of cypress timber, but pine and other desirable woods, that are becoming generally scarce, are contained throughout its area.

Furthermore, it is pointed out, the swamp is needed for Government experimental stations, and as a place for a fish hatchery to supply all Government aquariums it cannot be surpassed.

The Government has had under consideration for several years the building of the Cumberland and St. Marks inland water canal, running from Cumberland, on the St. Marys River, through the Okefenoke Swamp, down the Suwanee River and thence to the Gulf of Mexico at St. Marks. On account of the many advantages of this canal, it is pointed out that it will be only a question of time before this canal will be completed, and that the Okefenoke Swamp should be utilized in preserving water for it.

It is shown that to drain the swamp and turn it into farmlands, as some have wished to do, would be to stop the processes of nature and lose the tremendous reservoir of water.

A prominent explorer says the swamp should be allowed to continue its evolution and the Government should establish a big observatory there to conduct investigations that could be carried on better in the Okefenoke than anywhere else.

Dr. J. D. Haseman, a graduate of Columbia University, an internationally known explorer in South America; a representative for three years of the Carnegie Museum; later, of the Brazilian Government, and for a year and a half a scientist attached to the imperial museum in Vienna, has completed investigation of the Okefenoke and advances the above unusual opinions set forth in regard to this great swamp which occupies land in Charlton, Ware, Clinch and Pierce counties in Georgia, and a little of Florida.

Explorations have been made of the Okefenoke Swamp by several expeditions from Cornell University and others, the reports from all of which are in keeping with the facts above set forth.

A List of Persons Arrested in the November Raids

On the night of November 7, agents of the Department of Justice conducted raids in the great industrial centers of the country, the object being the arrest of persons for whom warrants had issued on charges of fomenting revolution, preaching anarchy, attempting to overturn the Government, etc. The list given below contains the names of those arrested in the cities indicated as their names appeared on the warrants. It is important to understand that the list does not represent a selected list of names. It might appear that names obviously foreign had been chosen, and others omitted solely to emphasize the fact that the agitators who are bedeviling the country are aliens. The lists are complete of those arrested in the several localities. No names have been added or omitted. It will be seen that the orthography of revolution is almost 100 per cent alien.—Editor MANUFACTURERS RECORD.

AKRON, OHIO.
 Kalianoff, John
 Kunashko, Dimitrie
 Koniaikin, Wasili
 Swenko, Ewistify
 Kowalaich, Frank
 Gazeyek, Fred
 Maliewsky, Wassily
 Yourkewich, Nicholas

BALTIMORE, Md.
 Berezin, Morris Isaac
 Brunert, Ivan K.
 Sokolowski, Mike
 Tryzno, Vincent
 Szcerba, Mike
 Prokop, —
 Benicevich, Kasimir
 Zarko, Nikifor
 Padziziej, Yefin
 Kostevich, Lonhen
 Zatyn, Michael
 Moroz, Gregory

BUFFALO, N. Y.
 Androussuk, Anton
 Boryskievich, Adam
 Chijefsky, Leo
 Chijefsky, Stanislaus
 Dubinetz, Gregory
 Horlenko, Peter
 Kirson, Boris
 Koroviansky, Gregory
 Levezuk, Daniel
 Popka, John
 Stepanoff, Anton
 Stepanoff, Osip
 Onischenko, P.

CHICAGO, ILL.
 Borovsky, John
 Rolich, A.
 Wasilewsky, Stephen
 Horoschienin, John
 Ratkovsky, Elia
 Olferehik, Nick
 Wakut, Thomas
 Mitalski, Mike
 Mitalski, Xaxier
 Wasilevich, Tony
 Bondaluk, John
 Mitalski, Philip
 Mitalski, Alex

CLEVELAND, OHIO.
 Biacharski, Frank
 Giguksa, Andrew
 Jacknowski, Jacob
 Kaltejka, George
 Krupke, Paul
 Kuish, Sam
 Lala, Wasil
 Maladuk, Adam
 Momochuk, Trofin
 Rosicok, Demetri
 Senko, Ivan
 Sereck, Andrew
 Stolarchuk, Gordey
 Jarosewicz, Andrew
 Jarosevich, Michael

DETROIT, MICH.
 Bukovitsky, Alex
 Chernoff, George
 Cherniawsky, John
 Euzikow, William
 Guren, Sam
 Hromoboy, Harry
 Muzuchuk, Mike
 Stebus, Jacob
 Kusik, Victor
 Makarevich, William
 Tarasoff, Dimitri
 Waschuk, Sam
 Thachuk, Gerasim
 Zaremba, A.
 Tolski, Wasyl
 Dub, Sam
 Romanoff, Michael
 Holodynki, Dan
 Laptonowich, Osip
 Stepesz, Peter
 Rosnak, Michael
 Saurchuk, Paul
 Omelo, Nick
 Wasukovich, Anton
 Zaremba, Mike
 Markowich, Sam
 Maloishk, Peter
 Kuliniuk, Anton
 Oleynick, Sergie
 Kladka, Mosiej
 Korneshevsky, Peter
 Ziobrzynski, John
 Bilski, Adam
 Logenow, Cepriion
 Omelinow, Mike
 Pruschuk, Anton
 Pavlowich, Julius
 Lisuk, Demian
 Muzuk, Demian
 Kuzmitsky, Walter
 Lowchuk, Walter
 Chuprina, Ander
 Kob, Mitrofan
 Laschuck, George

HARTFORD, CONN.
 Austre, Peter
 Bocas, James
 Bogen, Zenow
 Brosiuk, Wladimir
 Bochanowitz, Michael
 Kemesis, Joseph
 Kezar, Nick
 Kezar, Peter
 Klatzkin, Mendal
 Kochovetz, Efim
 Kulesh, Mark
 Habetz, Andrew
 Kosmin, Mike
 Prokopowitz, Steve
 Lopata, Mike
 Yasinski, Dimitri
 Bukorewitz, Michael
 Bachvat, Semion
 Fedyk, Kyril
 Milinarsky, Nik.
 Salutko, Louis
 Grishen, John
 Lagun, Fred

Matimowsky, John
 Nazarchuk, Anni
 Philisoph, John
 Prohorczuk, Michael
 Szczepansky, Anton
 Waslisko, Joe
 Volkov, George
 Boiko, John
 Sulavko, Evstafi
 Polistehuk, John
 Leedak, Brony
 Nevieretz, Nikolai
 Tcherniak, Ivan
 Zapinsky, Mitchell
 Draco, Konstantin
 Pustovoy, Nikonor
 Draco, Nikifor
 Yekstish, Antonu
 Kovalsky, Louis
 Shweisius, Mike
 Korson, Tony
 Bolash, Andrety
 Novik, John
 Michnewitz, Gavrile
 Demezuk, John
 Evanuta, Platon
 Worobei, Ignace
 Zubko, Nestor
 Huden, Ivan
 Koaovetz, Spiridon
 Steaukowitz, John
 Worobei, Maxim
 Dimitrowitz, Affenass
 Koos, Tom
 Wolczuk, Nick
 Gussin, John
 Dimitrov, Anton
 Barkovsky, Semion
 Bondarenko, William
 Segeszer, Mike
 Cheshuiko, Wladimir
 Zoson, John
 Shefig, Nestor
 Servantuk, Alex
 Jesushena, John
 Makarewitz, Lawrence
 Maniuk, Alex
 Nabagez, John
 Masseiko, Mike
 Laziuk, Mike
 Anisenin, Anton
 Suchow, David
 Kotink, Anton
 Kovalewitz, John
 Wasseiko, Aacéhari
 Romanecuk, Konstantin
 Zdanowitz, Mike
 Leonoff, Tom
 Bielyk, Wassil
 Daniilowitz, Ivan
 Archuk, Wladimir
 Nestoroff, Pavel
 Fiesko, Harry
 Tarasiuk, Wassily
 Fengol, Kiril
 Petroshka, Kostatine
 Nichiporuk, Walter
 Wladko, John
 Mirinovich, Peter

NEWARK, N. J.
 Lawua, William
 Vlasoff, Demian
 Andonoff, Mishka
 Bugdonoff, Ignatz
 Cyzik, George
 Cozlich, John
 Federaco, Tony
 Turs, Thomas
 Hastinalla, Andre
 Hieduk, Alfonse
 Koza, Joe
 Kravchuk, Dimian
 Koropotko, Nicholi
 Kormen, Alex
 Keretchuk, Boris
 Kaminsky, Steve

Kutovich, Fedosie
 Lazarowitz, Andrew
 Melnick, Nick
 Newar, John
 Podlipky, Mathew
 Oehrymuk, Nick
 Proskowich, Theo
 Pancko, Dimitrie
 Rice, Daniel
 Sevitzy, Mick
 Turka, Tom
 Urgell, Peter
 Uschenpa, Stephen
 Vizeroff, Nick
 Waronenko, Peter
 Yarmola, John

NEW YORK CITY.
 Andriuk, Roman
 Brook, Abe
 Chinejko, Marin
 Katzen, Arthur
 Kravchuck, Michael
 Kushnarev, Feodor
 Lipkin, Dora
 Nowick, P.
 Perkus, Hyman
 Schatz, Alex
 Schatz, Boris
 Smallek, Tony
 Tarnsuk, John
 Vermanuk, John
 Zafronia, Nikita
 Stephanuck, Naum
 Seegum, Mike
 Wardner, Harry
 Abrossemoff, Michael
 Wasloff, John
 Ristic, Louis
 Kolesnikoff, John
 Washnitz, Nicholas
 Zora, Peter
 Lipski, Anton
 Wasilieff, Nicholas
 Bernstein, Ethel
 Bonoff, John
 Ordowsky, Marcus
 Chernoff, Alex
 Lawrenuk, Mike
 Kosloff, Peter
 Lachowsky, Hyman
 Bianky, Peter
 Haskewicz, Leo
 Chalow, Adam
 Smkewich, Eli
 Skochuk, Harry
 Duboff, Jake
 Melnikoff, George
 Poluleek, Josef
 Kerscheikoff, Anthony
 Apasunasech, Benjamin
 Bratko, Mike
 Stockey, Max
 Novikoff, —

PHILADELPHIA, PA.
 Listschuk, Mike
 Urkevitch, Peter
 Yaravoy, Fred
 Moseychuk, Roman
 Furshman, Mathew
 Jakimov, Paul
 Wasiliuk, Wasily
 Iknasko, Makita
 Kozey, John
 Denisiuk, Jakim

PITTSBURGH, PA.
 Garoshkaw, George
 Diaktrow, John
 Horwitz, Sam
 Zbrominsky, Jacob
 Maundeloe, James
 Byra, Jacob
 Lovovetsky, Anthony
 Tsubrick, Ortib
 Geray, Andrew
 Chigreaff, Andrew
 Pranka, Andrew

President Proposes Plan for Settlement of Coal Strike

[Special Correspondence Manufacturers Record.]

Washington, D. C., December 8.

Friday afternoon Dr. Garfield, Attorney-General Palmer and Mr. Tumulty, secretary to the President, conferred at the Department of Justice. Reports from the several coal sections of the country were considered, and they were not considered reassuring, except from West Virginia, where there were indications that the strike was about to be broken. Mr. Tumulty attended the conference as the direct representative of the President.

At noon Saturday, John L. Lewis and William Green, representing the striking miners, arrived unheralded in Washington. It is not known whether they were summoned by the Government or appeared on their own volition. They went into a secret conference with Attorney-General Palmer and Mr. Tumulty, which lasted until midnight Saturday, when Mr. Palmer issued a statement to the effect that "a definite, concrete proposition from the President looking to the speedy settlement of the strike" had been provisionally accepted by the strike leaders.

It was reported that Dr. Garfield applied at the White House Saturday morning for permission to speak with the President, but was unable to secure an audience. During the day the President did receive Mr. Palmer, and talked with him briefly.

Asked on Sunday what the terms of the proposed settlement were, Dr. Garfield replied: "My position has not been budged one inch and will not be." The Fuel Administrator had previously declared that he was tired of the continuous effort to settle the strike by compromising with the miners and passing the excess cost on to the consumer. He does not care what the operators pay the miners, provided they do not pass the increase on to the public.

The Fuel Administrator has the authority to fix the price of coal, but he has no authority to fix wages.

The general impression at the capital is that the compromise in process of accomplishment was bitterly opposed by Dr. Garfield, who wanted to carry the issue to the President himself, and that he was overruled, although it was stated that the terms of

the arrangement would be so camouflaged as to prevent the appearance of a repudiation of the Fuel Director by the Administration.

What the terms are will not be divulged until after the meeting at Indianapolis, which the Attorney-General expects to attend. It is generally believed, however, that the compromise provides that the miners go back to work at the 14 per cent increase in wages already suggested, with the understanding that the Government shall provide at once a commission to study the whole bituminous coal question, with authority to make an award and to make it retroactive as to wages. The idea would be for the board to require that such advances as it allowed should be met by the operators without passing any of the cost on to the public. But the board would be authorized also to state what a fair price to the public would be, if it seemed necessary.

The effect of such an arrangement would be to reopen the mines. It would also show the value of negotiating outside of court, although in the shadow of the jail.

The ending of the strike will not mean the termination of coal control immediately. Acting under the authority of the Fuel Administrator, the Railroad Administration will continue to allocate coal and supervise its distribution until production is again normal. That might require several weeks, assuming that the Railroad Administration itself does not cease to exist on January 1.

Although reports are persistent that the President has concluded to retain the railways until the end of the fiscal year, July 1, 1920, some officials close to the White House declare that one reason for hastening the end of the coal strike, instead of fighting it out, was to have conditions in such shape as to permit return of the properties January 1. This view is somewhat strengthened by the strenuous efforts Mr. Hines has been making to come to an agreement with the railroad brotherhood chiefs, looking toward a settlement of their wage demands. The only thing, it is said, that can keep the roads under Government control is fear of a general strike, which would throttle the country in the dead of winter.

more and more men are coming to realize that the solution of the gigantic problems before us are not to come through economics or political science, but through a higher conception of morals and sacred obligations. The truth is that what we need is not better legislation for relationships between man and man and nation and nation, but a higher conception of what are the worth-while things in life.

The Great Teacher had two themes—God and man—and in the working out of what is the proper relation between God and man on the one hand and man and man on the other hand, we have a big enough theme for any age and any mind.

I did not mean to comment at such length in this letter, but your editorial was so suggestive and so illuminating as to what men who touch the world in large ways are thinking, that I could not refrain.

Licensing System May Be Applied to Dye Imports.

Washington, December 8—[Special.]—A subcommittee of the Senate Finance Committee decided to open hearings today on the Longworth bill for the protection of the dye and chemical industry in the United States. Congress has already passed a bill extending until January 15 the existing restrictions exercised by the War Trade Board, under the authority of the Department of State.

The hearings will be principally on the licensing feature of the bill, as both the Republican leaders and the President have agreed that protection of the new industry is essential to national preparedness. In his message to Congress the President reiterated his previous recommendation, made last May, of prompt and adequate legislation to prevent the Germans from again monopolizing the American dye industry.

Senator Penrose is ill, and it is understood that he has been the chief opponent in the Senate of the licensing feature of the bill. There is some reason to believe, however, that he will accept the licensing program, as modified by the House, with the understanding that it is a purely temporary expedient.

The Only Path to Safety.

JAMES G. BAILEY, Associate Field Director, The New Era Movement of the Presbyterian Church in the U. S. A., New York, N. Y.

Upon my return to this office I found the package of 100 copies of "Am I My Brother's Keeper," for which I am very grateful to you. It has been my privilege for some time to cite this article in public addresses, and I shall make wise use of the copies you have sent me.

I also found in my mail a copy of your publication of date of November 13, enclosing a poster of the same editorial. I am also glad to have this.

It does make more inspiring our task when our great trade journals are uttering the truth which we are striving to have declared everywhere. Your editorial has the right ring and commanding emphasis.

I am also encouraged in our common task by observing how often leading publications are sounding the note of what is the best basis of reconstruction work. While from some quarters we are told that only production can immediately solve our problems, it is reassuring to hear from other quarters that what we need is not so much increased production as wise and humble consumption.

It has seemed to some of us for a long time that we need an humbler standard of living, which does not imply a lessening of the essential things of life and culture, but an insistence on those things which are of first importance.

One may say that one's needs are summed up in shelter, food, clothing and culture. It was some years ago that Mr. Steinmetz of the General Electric Company, in his book, made the statement that in the last 100 years individual consumption had increased 10 per cent, and that if it had increased only 4 per cent the problems of the present day would not exist.

In briefly commenting on such a large subject one is apt to leave the matter obscured, but in several groups where I have listened to discussion of this problem I have been convinced that

Open Shop Associations Organized to Contest Radical Labor Unionism

TEXAS CITIES JOIN STATE-WIDE MOVEMENT TO COUNTERACT BAILEFUL EFFECTS OF PAID AGITATORS AND APOSTLES OF DISCONTENT.

[Special Correspondence Manufacturers Record.]

Austin, Tex., December 4.

Open shop associations have been organized in San Antonio, Beaumont, Austin and Dallas. The movement promises to spread to all the other larger cities and many of the smaller towns of Texas where industrial plants are situated. It is explained by members of these organizations that they were practically forced to take this means of combating the baleful effects of arrogant and radical labor unionism. Although the union labor element of Texas is perhaps of a higher standard than that of most other States, due to the comparatively small number of illiterate men of foreign birth among its members, the seeds of socialism and other radical ideas have been sown among them by paid agitators, bringing about strikes and general discontent.

It is the avowed purpose of the open shop associations to give absolutely fair and just treatment of union and non-union men alike. It is stated that no beating down of wages has been or will be attempted by members of these organizations. The principles upon which they are operated are those of pure Americanism, it is declared.

The first of the open shop associations in Texas was organized in San Antonio last spring. It is called the Open Shop Association of San Antonio. Franklin O. Thomas, secretary, in explaining the purposes and scope of the association, said:

"This association is not in any preliminary stage at this time, but has been in active operation since May 10 of this year, at which time the organization took place. The conditions existing at that time, had they not been checked, would have made this city a card town and it would have been impossible for anyone to secure work in San Antonio except a member of some union, as the Federation of Labor had sent to this city from 15 to 20 of their organizers to place this city on a card basis. We have been very successful in handling all our labor troubles with this organization. We have had strikes, sympathetic and otherwise, by seven of the building crafts, and have won our point in each case so far. We believe that we have almost solved all possible labor troubles as far as unionism is concerned. We believe that the open shop association is the panacea for all labor ills.

"The purposes of the Open Shop Association are fully covered by our 'Declaration of Principles.' We have in our organization representatives of practically all the employing interests of this city, with the one exception of the retail merchants, and we have made no practical effort to line these up to the present time. This association is, to the best of our information, the first purely open shop association in the United States, with the open shop as its one and only principle.

"We early found the advisability of operating an employment bureau in connection with our work. The purpose of the bureau was to give strangers in the city, as well as other mechanics, the opportunity of finding employment without being forced to apply to the unions for help. Since that time the bureau has accomplished effective work, and we have had to enlarge our quarters and place in charge a head with an assistant. We are now going through the process of listing and classifying every building trade mechanic in the city, with the view to being able to furnish applicants for assistance just the kind of mechanic he may want. This is being done on rather an elaborate basis, and we believe when completed will be well worth the time and money we are spending on the work.

"Since the organization of our association in May we have been instrumental in the organization of such associations at Beaumont and Austin, and El Paso is now organizing. We have had inquiries from all over the country as to our methods of conducting our association, and we believe that San Antonio has taken the lead in giving to the country a method completely corrective of labor troubles."

The Open Shop Association of Jefferson county, including the city of Beaumont, is making splendid progress. It was organized October 10, 1919, and at the present time has over 1200 members,

approximately 90 per cent of the employers of labor in Beaumont being members of this association. Shortly after the association came into existence, a sympathetic strike was called by different labor unions, consisting principally of the building trade crafts. Conditions now are rapidly becoming normal, and most of the employers affected by the strike have their business in operation again.

It is stated that the Open Shop Association of Jefferson county was organized as a defensive means to combat the arrogance and destructive dominance of radical labor leaders of the business of Beaumont. Although a large number of the employers had signed up working agreements with the various unions, fixing a wage scale, yet such contracts were frequently and constantly violated and repeated demands made for increase of wages. Last summer an organizer went to Beaumont with the purpose of organizing a Retail Clerks' Association. The merchants gave permission to this organizer to talk to their clerks, which he did. Business meetings were called and other efforts exhausted to interest the clerks, but only a handful of them responded. It is alleged that upon being confronted with a failure of this project, this organizer, acting in conjunction with the Trades and Labor Assembly of Beaumont, presented the merchants with a closed-shop contract to be signed by them. The real object and purpose of this contract, it is asserted, was to use the merchants as an instrumentality to force their clerks into a union and thus to accomplish the purpose which had so signally failed at the hands of the organizer. When the merchants refused to sign the contract they were declared "unfair" to labor and boycotted. Pickets were placed on a number of the stores. They were not satisfied with using white pickets, so they included negroes. These pickets, both white and black, were very boisterous in their work, and personally interfered with the customers going in and out of the stores. On Saturday night sympathizers would gather in front of the stores and threaten and intimidate the customers and clerks. An injunction was finally obtained restraining them from further picketing, which injunction they promptly ignored, it is asserted. Relief was not obtained until the City Council passed an anti-picketing ordinance.

The Open Shop Association of Jefferson county is incorporated, and its objects and purposes, as stated in its charter, are as follows:

"This corporation is organized for an educational undertaking, to wit, for the purpose of collecting and disseminating information to the public showing the advantages to the public of the open shop in the manufacture, sale and distribution of goods, wares and merchandise in the city of Beaumont and Jefferson county, Texas, and adjoining territory."

Under its constitution its principles are thus stated:

"This association is organized for the purpose of promoting the industrial and business interests of Jefferson county, Texas, and adjoining territory, and to establish equitable industrial conditions for employers, employees and the general public.

"By its teachings and good offices to prevent and avert industrial disturbances; to harmonize differences between employers and employees, with justice to all concerned, and to insist in the enforcement of the laws of the land.

"To oppose restriction of output, sympathetic strikes, lockouts and boycotts and illegal persecution of individuals, all of which are a menace to the industrial progress of our community and our country and tend to the undermining of constitutional rights.

"To secure for employers and employees the freedom of individual contract in the matter of employment. To insure everyone of his right to earn a living, regardless of his membership or non-membership in any organization.

"To prevent any interference with persons seeking through honest effort to work and earn an honest living. To lend its aid and influence to protect everyone in his lawful right to conduct

his business or affairs as he deems proper, so long as he does not encroach on the rights of others."

W. A. Sedgwick, manufacturer of Dallas, in a statement of the progress of the open-shop movement in that city, says:

"The Open Shop Association has been formed in Dallas, and from what I can gather to date there are about 500 firms and individuals who have signed up, with several hundred signing every day.

"The existing labor conditions were that a number of the unions violated agreements that they had with the builders of Dallas. The above conditions have not been remedied.

"Just what proportion of the employing industries have signed up I cannot say, but know that a good percentage have or will.

"At a call to membership meeting of the Chamber of Commerce, at which approximately 750 of the most representative men of Dallas attended, they by almost unanimous vote endorsed the open-shop movement after they had heard arguments from both the labor interests and the builders. At meetings of all the noonday luncheon clubs it was still further endorsed unanimously, and a great many of the ones present signed for membership.

"The people of Dallas are tired of being dictated to by the unions, and have determined to change those conditions."

In Austin the organization of the Open Shop Association grew out of the alleged arbitrary acts and arrogant attitude of union labor men. Strikes of plumbers and electricians were declared several months ago in violation of their contracts with the employing shops. These men are still out. When the open-shop movement was started here union carpenters and employees of planing mills struck because their employers had joined the association. In some instances these men have gone back to work. The vacant positions are being filled rapidly by non-union men who are brought here from outside places.

"Every Citizen a Home Owner" to Combat Bolshevism.

Kingsville, Tex., December 8—[Special.]—Bolshevism and other forms of dangerous radicalism are to be kept away from the farms and ranches of South Texas through the efforts of the Rural Land Owners' Association. This organization is said to be the first of its kind in the United States. It embraces in its membership the owners of approximately 10,000,000 acres of land, covering 20 counties. The Association is formed for the purpose of promoting the mutual interest of the farmers and ranchmen of that part of Texas which borders the lower course of the Rio Grande and the Gulf coast. Robert J. Kleberg of Kingsville is president. He is manager of the 1,280,000-acre ranch of Mrs. Henrietta M. King. It is stated that the association has no political purpose to serve.

The organization of the Rural Land Owners' Association had its inception in the idea that inasmuch as land is the source of all wealth because it is the source of production, effective results might be accomplished for the material advancement of South Texas by an association composed of owners of the soil, which might co-operate in the solution of the manifold problems which constantly arise in the ownership, management and settlement of land. It is stated that it will be the aim of the Association to interest itself in all questions which affect the interests of land owners, such as problems of transportation, distribution, sales and development of land and taxation.

The members of the association are especially interested in the settlement and development of this section of Texas, and it is proposed that eventually some system will be evolved by the association whereby the land buyer who seeks to become a home owner and producer will find it comparatively easy to realize his ambitions. It is announced, however, that the association will exert its influence against the character of land speculation which has in times past been so hurtful to this and other sections of Texas. Every possible encouragement, on the other hand, will be offered to the land seeker who will put his land into a state of cultivation and become a producer.

In the discussion which held the attention of the directors and county committeemen at a recent meeting held here, the question of ways and means for combatting the destructive consequences of Bolshevism and kindred evils received foremost attention, and it seemed to be the general consensus of opinion that the surest and most certain solution of the problems will be found in a policy of "America for Americans" and "every citizen a home owner."

The Question of the Bonus to Soldiers.

Dixie Consolidated Graphite Co.

Birmingham, Ala., December 5.

Editor Manufacturers Record:

Please allow me to say a word in commenting on your article on page 124 of the December 4 issue of your paper, under the heading of "Bonus to American Soldiers."

The writer has served in the naval forces of our Government, enlisting the same day we declared hostilities, and left a six-day bride to give my all that she, with all our other American women, "the noblest women in the world," may not perish under the foot of those scoundrels who had no regard for civilization. Personally, I would not be in favor of the Government, to show its appreciation of the stand which we took, offering a bonus to the men of the separate branches of service, nor the Red Cross nurses who so gallantly stood by our men on the battlefields.

My objection to this idea is not merely through pride. The undertaking on the part of the Government would be a great one and one that would of necessity take many months before the names and addresses of these men could be determined. The entire plans before definitely decided on and worked out would take too long. In all probability the whole thing would be unsatisfactory.

It has, however, occurred to the writer many times in the past six months that the people of the greatest nation in the world do not appreciate what we have tried to do for their interest and welfare. Go anywhere in the United States today and you will find hundreds, or even thousands, of our former soldiers, sailors, marines, or even, I am sorry to have to admit, some of those girls who nursed our wounded, looking and begging for employment.

In my mind the gigantic selfishness of those who stayed at home is manifest in their refusal to place those men who have come back without a dollar, as a good many of them did, and even had to support families and furnish them with the necessities of life.

During the One Hundred and Sixty-seventh Rainbow Division parade in this city, on the return from service of those boys, I witnessed the spending of about \$60,000 for "decorating the lamp-posts," so that some of our broad-minded (?) people could shout "Hurrah!"

This city is right now spending great sums of money for the entertainment of Gen. John J. Pershing, who is to speak here on the 12th of December. I am in favor of such appropriations and believe in giving the "best the city has to offer" for so great a General as ours has been. We owed a world of gratitude for the manner in which he handled our men. At the same time, would it not be infinitely better for any city or State to spend that amount of money among the men of the district who have returned, as I did, with about \$40 in cash, no job, no certainty as to a place to live in and house rent "sky high?"

Please do not misconstrue my meaning. I deplore the word sympathy, and have no time for the man who cries from a few little hardships, and wants something given to him. A majority of these men want work, and can't get it.

It should not be for the service man to say what the men who stayed home should do. I would like to ask, is there an American among us ready to do something for those men who are still out of employment and who have not been as lucky as I have been in getting established.

In my opinion quick action is needed, and this would indeed be more appreciated by our men who fought and won, than all the bonuses the Government could give. The Government already has a heavy tax. What are the men who stayed at home going to do NOW?

HENRY SERLIN, Treasurer.

Road Machinery Plant for Chattanooga.

Chattanooga, Tenn., December 2—[Special.]—Chattanooga's newest manufacturing enterprise is the Chattanooga Road Machinery Co., headed by J. H. Dean, formerly of Birmingham. The company will manufacture all kinds of road-building machinery, and will specialize in a butt-joint nestable culvert for which the company holds patents.

The location of a road-machinery plant in this section of the country will mean a great saving in freight, since machinery is now shipped from points north of the Ohio. The industrial bureau of the Chamber of Commerce has given the freight-saving question much thought, and is responsible for the new concern.

Economic and Mineral Resources of the South and Their Relation to Chemical Manufactures

COMPREHENSIVE SURVEY OF CONDITIONS AND OPPORTUNITIES FOR VAST INDUSTRIAL DEVELOPMENT—SOUTH A SECTION UNEQUALLED IN EXTENT AND DIVERSITY OF MINERAL WEALTH.

By RICHARD K. MEADE.

[A remarkable presentation of the South's mineral resources as they relate to the opportunities for the development of chemical industries was made in an address delivered by Mr. Richard K. Meade of Baltimore before the meeting of the American Institute of Chemical Engineers, held at Savannah, Ga., December 3 to 6. Mr. Meade is a recognized authority on the design and operation of a broad range of chemical and associated industries. Mr. Meade's address covered the whole field of Southern mineral resources, and also outlined all the labor, power, transportation and other conditions affecting industrial development in the South along chemical lines. Declaring that in extent and diversity the South's mineral resources are greater than those of any other section, Mr. Meade forecasts a tremendous development of chemical manufacture South, and he marshals his facts in such overwhelming array as to easily prove the contention that he makes.

Owing to the length of the address it will be published in the Manufacturers Record in three sections. The first section, herewith, surveys the field in a broad sweep; the second section will deal specifically with the South's basic raw materials, while the third gives the location by States and counties of the mineral deposits of the South.—Editor Manufacturers Record.]

Until the closing decade of the past century, the South was almost entirely an agricultural community. The cotton crop was sent to New England to be woven into cloth. The hides from Texas cattle were sometimes tanned in Southern yards, but the shodding of Southern feet was left to New England. Some iron was smelted. Some coke was made and a little gold was mined. For the most part, however, the South, with a vast store of untouched mineral wealth, remained an agricultural community until the beginning of the present century.

The last three decades, however, have seen an important change in the economic situation of the South. It still produces more than half the total farm products of the country and agriculture furnishes even now the means of livelihood for most of its people, but I am sure that those of you who have traveled through from the North have seen evidences of its coming development into an important manufacturing center.

The numerous cotton mill settlements which you have seen in the Carolinas are only a part of this development, however. Had your train passed through the beautiful Appalachian section of the South you would have seen the smoking stacks of many chemical and metallurgical plants also. This section of the country, comprising Western Virginia and North Carolina, Eastern Tennessee, Northwestern Georgia and Northern Alabama, is, I believe, unequaled for the extent and diversity of its mineral wealth.

We already have in the South the two largest plants in the world for the manufacture of sulphuric acid, and the second largest sugar refinery. By far the greatest quantity of acid phosphate and mixed fertilizer is made in the South. The greater part of the cement needed by the South can now be made in its plants, and lime from the Virginias and Maryland not only supplies these States but also many of the chemical plants at Jersey City and Niagara Falls. Much of the iron and steel used in the South comes from the Birmingham district and no doubt more would come from this section but for reasons which are without the province of either metallurgy or economics.

Economists have attributed the wealth of Great Britain to her abundant stores of coal, iron ore and limestone. The Southern coal reserve is more than two and one-half times that of Great Britain; her iron ore reserve three times as great and her limestone beds beyond comparison. To heighten the advantage, the South has the finest deposit of sulphur in the world, an inexhaustible supply of salt, much oil, natural gas and many minerals.

In spite of this plethora of mineral wealth, however, the entire 16 Southern States, including Maryland, West Virginia, Kentucky, Missouri and Oklahoma, have less capital invested in manufacturing than have the two States of Illinois and Ohio. Massachusetts, a Commonwealth without marked resources in the way of fuels, minerals, agricultural or forest resources, has more money invested in manufacturing within her boundaries than have the six Southern States which are richest in mineral wealth.

If the South is to reap the full benefit of her vast resources she must develop much farther along manufacturing lines. It is not enough for the South to mine her ores, to cut her timber, to

I.

grow her crops; she should so market these that they will represent the greatest value. A ton of limestone and a little less of coke represent a value of only a few dollars, but the 2300 pounds of carbide into which they may be made by employing water at present going to waste is valued at something like \$100.

In spite of the progress which has been made in the South during the past years, I prefer to regard it as a land of great future possibilities in manufacturing rather than as one in which this has in any way been achieved. I am, therefore presenting some of the advantages which this section has to offer for the location of chemical plants.

The chief factors which determine the location of any manufacturing plant, where this is done after scientific study rather than the desire or pleasure of the owners, are the ability to obtain cheaply suitable raw materials, labor and fuel and to reach the market on a competitive basis. Added to the above are, of course, a host of minor considerations, such as low tax rates, and, in the case of special industries, climate, water supply, laws which will permit of the disposing of waste material without hindrance, etc.

Fuel.

The South today mines about one-quarter of the coal output of the country and manufactures about one-sixth of the coke. The Southern coal area is twice that of Europe and extends over 88,000 square miles. It is estimated to contain approximately three-fourths of the coking coal of the nation. For the most part, this coal area lies nearest the region of greatest mineral wealth, namely, along the slopes of the Appalachian Mountains, and hence relatively cheap fuel is available throughout much of the region to which chemical manufacturers are most likely to be drawn. All of the coal in this section of the South is high-grade bituminous. For those requiring a special grade of fuel, coal low in phosphorus, sulphur and ash are generally available.

In addition to this area of bituminous coal, there are over 80,000 square miles of territory believed to contain lignite. The future potentialities of this field are believed to be enormous, but its present value is small because better fuel is easily available. The utilization of this lignite is a problem for chemical engineering.

Coke is made pretty generally throughout the territory and there are some by-product coke ovens, located chiefly at Sparrows Point, Md., and in the Birmingham district, from which sulphate of ammonia, benzol, toluol, etc., can be obtained.

I am giving below some of my analyses of Southern coals. All of these samples were drawn from cars and do not represent simply selected lumps of coal.

Location.	Mois- ture.	Vol. Comb. Matter.	Fixed Carbon.	Ash.	Sulphur.	B. t. u. per lb.
Georges Crk., Md.	2.10	17.14	72.46	8.39	1.02	13,972
Pocahontas, Va....	1.25	17.35	71.28	7.12	0.80	14,210
New River, W. Va.	1.59	22.02	70.40	6.98	0.63	.....
Clinchfield, Va....	0.95	36.95	53.95	7.10	0.60	14,569
Wilder, Tenn.....	2.26	34.10	60.12	12.52	2.40	.....
Bell Co., Kentucky	3.21	38.70	49.30	8.79	1.16	14,109
Mary Lee, Ala.....	2.50	27.10	59.38	11.02	0.82	.....
Mendota, Mo.....	12.18	27.16	36.12	23.54	3.75	.....

The Southern oil fields lie mostly in West Virginia, Louisiana, Texas and Oklahoma. It is established that these oil fields have a

possible production of more than 4,000,000,000 barrels of petroleum, and at the present time do furnish fully a third of the world's supply. The Gulf States can, of course, be supplied with oil very easily from the Mexican field also.

It is generally recognized that the asphaltic oils of the Gulf Coast are more easily broken up by chemical re-agents than are the paraffin oils of the North, and as a beginning chemical research has found it comparatively easy to make from them such important technical compounds as carbon tetrachloride, chloroform, chloral, etc. Where else in the world do we find such a wealth of chemical re-agents so close at hand—salt, sulphur, lime and cheap power from gas? This line of research and its practical application should open up a wonderful chemical industry.

Natural gas occurs in numerous localities in the South, and West Virginia was the birthplace of the industry in America. The chief fields are in West Virginia, Louisiana and Texas. The two most promising fields, so far as industrial users are concerned, are the Caddo gas fields in Northern Louisiana and the Corpus Christi district in Texas. The Caddo gas is 95 per cent methane and the geological indications are that a supply of long duration is obtainable there. The principal manufacturing city in this district is Shreveport, where the gas is obtainable.

I am giving below an analysis of the Caddo gas:

Methane	95.00%
Carbon Dioxide	2.34%
Nitrogen	2.55%
Hydrogen sulphide	0.01%
Calories per cubic meter	8,168
B. t. u. per cubic foot	918

Power.

The National Geological Survey has estimated that the water-power in the streams of the Southern States amounts to a minimum of nearly 3,000,000 horse-power and a maximum of over 9,000,000 horse-power. The water-power developments now in operation amount to about 1,000,000 horse-power or a development of about one-fifth of the possible minimum flow. The Southern Power Co. already has developed nearly a third of a million horse-power and three others have over one hundred thousand horse-power available.

The survey places the available power in the headwaters of the Appalachian Mountains at 2,800,000 horse-power. This region has the highest rainfall in the United States, the topography is ideal for the development of low head power stations and the climatic conditions are favorable to the maintenance of transmission lines. This region is also that of greatest mineral wealth—iron, coal and limestone all around there—and therefore the one most suited to the establishment of electro-chemical industries. (The location of mineral deposits in this district is given further on in this paper).

The water-power available in the various Southern streams is shown by the following table:

RESOURCES OF POWER IN SOUTHERN STREAMS.

Rivers.	Drainage area Square miles.	Estimated Horse-power	
		Minimum.	Maximum.
Potomac	14,300	176,000	462,000
James	10,400	196,000	300,000
Chowan	5,000	5,100	10,100
Roanoke	9,740	205,000	343,000
Tar	4,350	4,000	8,000
Neuse	5,550	5,000	10,000
Cape Fear	9,030	40,000	80,000
Peegee (Yadkin)	10,600	222,000	334,000
Santee	14,800	400,000	590,000
Savannah	11,100	290,000	438,000
Ogeechee	5,140	4,300	10,700
Altamaha	14,100	57,600	94,000
Apalachicola	18,800	204,000	326,000
Tombigbee	42,100	50,000	100,000
Alabama	42,100	275,000	487,000
Sabine	20,700	2,029	5,050
Trinity	17,700	3,180	12,800
Brazos	48,800	7,460	20,900
Colorado	39,000	28,100	55,700
Guadalupe	10,500	36,000	43,400
Rio Grande	248,000	267,000	545,000
Pecos	.....	55,000	87,800
Ohio	204,000	40,000	100,000
Tennessee	1,210,000	1,950,000	.....
Cumberland	.....	76,830	159,000
Green	.....	11,400	28,500
Kentucky	.....	18,100	45,100
Licking	.....	5,360	13,400
Big Sandy	.....	21,700	57,600
Kanawha	.....	902,000	1,029,000
Monongahela	.....	71,000	233,000
Osage	177,500	7,890	19,000
Arkansas	.....	210,000	382,000
Cimarron	.....	11,500	44,000
Canadian	.....	83,900	348,000
Red	.....	48,900	148,000
Minor Streams	312,520	267,600	449,300
Totals.....	1,253,740	4,918,910	9,210,350

The principal hydro-electric power companies operating in the South are the Alabama Power Co., the Carolina Power & Light Co., the Columbus Power Co., the Georgia Railway & Power Co., the Southern Power Co. and the Tennessee Power Co.

These systems, with the exception of the Alabama Power Co., are inter-connected and form an unbroken transmission line 1000 miles long from Nashville, Tenn., to Henderson, N. C. The table below gives information about some of the more important individual companies:

POWER DEVELOPMENTS OF THE SOUTH.

Company and station.	Developed water power Kw.	Auxiliary stream plants Kw. h.	Developed total power Kw. h.	Yearly load factor.	Miles H. T. line.
Georgia Ry. & Power Co.— Tullah Falls, Ga.	72,000	.....	.....	.....	.....
Mathis	.....	.....	.....	.....	.....
Ball Sline	10,500	.....	.....	.....	.....
Dunlap	2,200	.....	.....	.....	.....
Butter St. P. H.	.....	11,000	.....	.....	.....
Davis St. P. H.	.....	10,530	106,200	.....	617
Alabama Power Co.— Lock 12 Coosa R.	67,500	.....	.....	.....	.....
Jackson Shoals	2,000	.....	.....	.....	.....
Warrior	.....	50,000	.....	.....	.....
Gadsden	.....	10,000	129,500	50.5%	1,000
Columbus Power Co.— City Mills	1,500	.....	.....	.....	.....
North Highlands	6,900	.....	.....	.....	.....
Goat Rock	20,000	.....	.....	.....	.....
Columbus, Ga.	.....	9,000	37,400	45.0%	130
Carolina Power & Lt. Co.— Buckhorn Falls (Cape Fear)	2,500	.....	.....	.....	.....
Neuse River	400	.....	.....	.....	.....
Raleigh P. H.	.....	3,750	.....	.....	.....
Goldsboro P. H.	700	.....	.....	.....	.....
Henderson P. H.	225	7,500	.....	.....	188
Southern Power Co.— Bridgewater	25,000	.....	.....	.....	.....
Lookout Shoals	22,800	.....	.....	.....	.....
Fort Mill	6,600	.....	.....	.....	.....
Fishing Creek	37,500	.....	.....	.....	.....
Great Falls	30,000	.....	.....	.....	.....
Rocky Creek	30,000	.....	.....	.....	.....
Watree	70,000	.....	.....	.....	.....
Ninety-nine Islands	22,500	.....	.....	.....	.....
Greenville P. H.	8,000	.....	.....	.....	.....
Mt. Holly P. H.	8,000	.....	.....	.....	.....
Greensboro P. H.	8,000	.....	.....	.....	.....
University P. H.	12,500	.....	280,900	.....	2,000
Tennessee Power Co.— Ocoee R. No. 1	18,750	.....	.....	.....	.....
Ocoee R. No. 2	15,000	.....	.....	.....	.....
Great Falls	9,750	.....	.....	.....	.....
Hales Bar	42,000	.....	.....	.....	.....
Chattanooga	.....	5,000	.....	.....	.....
Nashville	.....	15,000	.....	.....	600
Knoxville	.....	4,000	109,500	.....	.....
Yadkin River Power Co.— Blewett Falls (Yadkin)	32,000	.....	32,000	.....	184
Totals.....	547,400	155,675	103,075	50.5%	4,719

It will be noted that in almost all cases the water-power is supplemented by steam-power. Under conditions which existed before the present high-price era, power plants located in or near the coal fields of the South could, if properly equipped and managed, furnish power at a figure not entirely out of competition with water-power. In certain favorable localities steam-power could be produced for about three mills a horse-power hour, including depreciation and interest on the investment, which is equivalent to about \$30 per full horse-power year. At Kingsport, Tenn., there is a large steam-power plant which furnishes power for such local industries as a cement plant, pulp mill, wood extract plant, dye works, chlorine plant, wood alcohol plant, etc. I believe the present rate there is about seven mills per kilowatt hour, or about \$45 per full horse-power year.

In view of the high cost of developing water-power and the fact that most chemical industries had rather purchase this than go to the expense of developing such themselves, it would seem that for those who are moderate users of power, there would be great possibilities in the utilization of some of the cheap fuels of the South by locating plants in the coal or natural gas fields. The first cost of even the most economical steam or gas plant will be far below that of developing the average water-power.

I have said nothing of the power development at Muscle Shoals, as the present status of this project seems uncertain. The proposed project would have produced about 680,000 horse-power, of which only about 280,000 horse-power was to be employed in industries already located there. If this development

is completed as contemplated, about 400,000 horse-power should be available for new enterprises.

Labor.

Southern labor, and particularly negro labor, has had many disparaging remarks made about it and is popularly supposed to be shiftless. I have done considerable construction work in the South, as well as in the North, and I do not find that a day's work done by Southern labor is materially less than that done by the foreign labor employed so generally throughout the North. My experience with operation has been largely with plants of the character of cement mills, lime kilns, and works of a similar character. It is, of course, difficult in the South to get the skilled labor necessary to operate these plants, but this is also true of plants located away from the center of these industries. Such labor must generally be brought in from outside, and the difficulty in the case of the South has been to get this labor to stay and work alongside of the negro.

The negro can be trained to perform many of the simpler tasks of the chemical factory. He will work at a semi-skilled job for much less increase of pay over a laborer's job than will a white man. Many negroes are essentially what we call "cornfield darkies;" such are usually shiftless and cannot be depended upon to work regularly. They are accustomed to the spurts required in farming, such as the planting season, the cotton-picking season, etc., alternated with periods of idleness.

Very good white labor can be obtained in the mountains of the South and much native white labor is employed in the Appalachian district.

There is one thing which can be said for the negro, and also for the Southern native white laborer: he is not Bolshevik in his tendencies. Labor unions find it difficult to absorb him and he strikes only on great provocation and after much urging.

In Baltimore, negroes are employed quite generally in chemical and metallurgical plants at the same rate of wage as the foreigners, and there seems to be little prejudice against them.

Certain general facts about labor conditions in the South are of interest to the manufacturer. The cost of living is less in the South than in the North, due to the proximity of the food supply and the need of fewer clothes and less adequate housing. The latter item is of importance to those manufacturers who

must establish their own colony of workmen. A much more cheaply constructed house will serve in the mild Southern climate than is necessary in the colder North. This advantage is increased by cheaper building materials and particularly cheaper lumber than is found in most Eastern manufacturing cities.

I am giving below the wages for some of the more important classes of workers in the various cities of the South:

WAGE SCALE OF SOUTHERN CITIES AND NEW YORK, NOVEMBER, 1919.

	Brick-layers.	Carpenters.	Hod carriers.	Struct. iron workers.	Common labor.
Baltimore	\$1.00	\$0.80	\$0.50	\$0.87½	\$0.40
Atlanta .....	.90	.70	.45	.72½	.35
Knoxville .....	.....	.....	.....	.....	.35
Birmingham .....	.....	.....	.....	.....	.35
New Orleans.....	.75	.60	.45	.80	.35
Savannah .....	.....	.....	.....	.....	.30
Chattanooga .....	.....	.....	.....	.....	.27½
Memphis	1.00	.75	.63½	.....	.30
New York.....	.87½	.81%	.57½	.87½	.50

Taxes.

In an address recently made by a prominent business man at a dinner given in his honor, he stated that one of the reasons which had induced his company to build its new factory in Baltimore rather than in the New England city in which it had formerly been located, was the fact that the saving in taxes alone in the Southern city would in 20 years amount to enough to build the new factory.

This brings to the attention the fact that the State and city taxes generally in the South are much less than in the East and New England. The rate of taxation does not materially differ in the three sections, but there is a very marked difference in the assessment on the property. While the Northern cities and States usually assess on amounts ranging from 75 to 100 per cent of the actual value of the property, the Southern States and cities usually assess much less than this and it is generally not more than 50 per cent of the value and in South Carolina is only 25 per cent. This saving is worth considering in determining on a plant location, as it lowers the fixed charges by just so much. The tax rate in 1918 within the corporate limits of most of the Southern cities was about 1.5 per cent of the actual value of the property, including State, county and city taxes, of which about one-third is State and county tax.

New and Efficient Type of Towboat for Mississippi River Service

By M. J. SANDERS.

New Orleans, La., December 4.

The Government River Service upon the Mississippi River was inaugurated by the first sailing of a towboat and barges from St. Louis to New Orleans on September 28, 1918. This service was adopted by the Director-General of Railroads for two purposes:

First, that of yielding as promptly as possible increased transportation very urgently needed at that time.

Second, for the object of testing under the authority provided in the Railroad bill the practical and economic value to the commerce of the country of water transportation upon those streams whereon there had been constructed a permanent navigable channel of suitable capacity.

The Director-General desired immediate operation, and for this purpose it was essential to charter or purchase such equipment as existed, and make the best of it. It was well known, and the Director-General so understood, that profitable operation with such makeshift equipment as could be obtained was not possible, but the urgency of increased transportation was regarded as over-balancing this drawback.

By means of chartering from private parties, and from the Engineer Corps of the Government, and buying a small fleet of the most modern equipment which was obtainable on the Mississippi River, an equipment of some 30 barges and 6 towboats was accumulated, and has been maintaining practically a weekly service both from New Orleans and St. Louis, a distance of 1145 miles, since the 28th of September, 1918.

Meantime, contracts were let for the construction of a suitable fleet for permanent operation on the Mississippi River. This fleet is to consist of six modern steel towboats and 40 steel barges.

The towboats will develop each some 2000 horse-power, and are of a type rather novel to us, though well known in other countries. They are not the old sternwheel or sidewheel type, such as has hitherto been in evidence on the inland waterways of this country, but are what is known as the tunnel type, and will have twin-screw propellers and triple-expansion engines, every detail being of the latest type of efficiency. It is confidently expected that these high-powered towboats will operate at less cost than the old type of one-third the power which are now being used. Further, they will not be obliged to lay up for 12 to 24 hours every few days to let down steam and blow the mud out of the boiler tubes. It is not proposed to let muddy water get into the boilers of the new boats.

The barges will have deadweight capacity of some 2000 tons each on a draft of eight feet, this being the minimum channel depth provided between St. Louis and New Orleans under the plans of the Federal Government.

It is contemplated that the equipment will be moved in units of five barges to each towboat, and it is recognized that towboats of this power can readily handle downstream at an average of some 10 miles per hour, five barges with a total of 10,000 tons of cargo on board. It is also understood that upstream, against the current, the towboats will not be able to handle more than 5000 tons of cargo, and that their speed will be reduced to approximately five miles an hour.

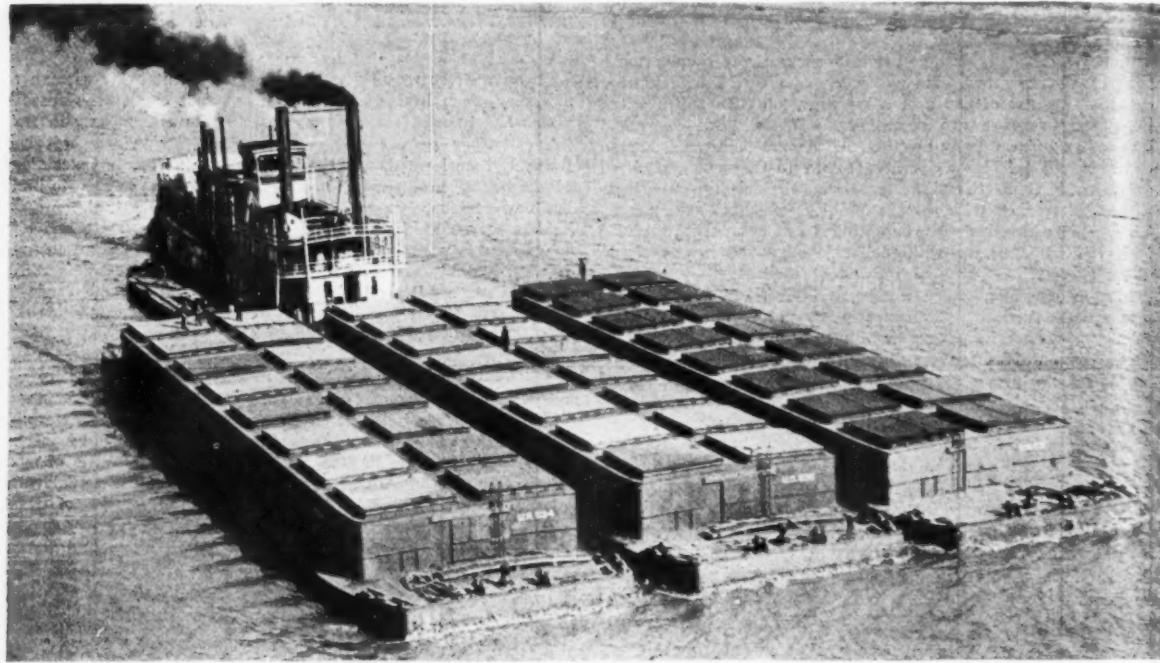
With the fleet of six towboats and 40 barges it is believed that departures can be made both from St. Louis and New Orleans twice each week, giving a total weekly capacity for cargo of some 30,000 tons over the distance of approximately 1200 miles from

St. Louis to New Orleans, or a total each week of 36,000,000-ton miles.

The lack of terminals on the Mississippi River, as on most of the inland waterways, has been a serious disability. Coequis with floating equipment are adequate well-equipped terminals and joint rail-and-water working arrangements. The question of terminals, especially for interchange of railroad traffic, is under active consideration by the Director-General at the time of writing; the construction of such terminals is imperative to proper development of the service. Terminals solely for local traffic, it is expected, will be constructed by the different towns upon the river banks; but terminals purely for interchange with the railroads are a different proposition, and it is recognized that the communities can hardly be expected to incur this expense.

There has been criticism of the heavy expenditures of the Federal Government in developing permanent navigable channels on our inland waterways, especially from sections remote from the rivers. There is now an evidence of intent to utilize these channels in our commercial economies, and in such manner that by means of the joint rail-and-river rates and joint bills of lading, communities away from the rivers can enjoy equally with the river towns such economy as water transportation affords.

The experience of the past 12 months has demonstrated definitely the existence of a suitable and permanent channel from St. Louis to New Orleans, 1145 miles. Navigation has been interrupted between St. Louis and Cairo, 182 miles below St. Louis, for some 30 days by ice, but with Cairo as the head of navigation during the ice period, there is continuous navigation available.



TOWBOAT "OSCAR F. BARRETT," WITH THREE NEW BARGES LOADED WITH WHEAT, ENROUTE DOWN MISSISSIPPI RIVER.

The question of traffic arrangements with the railroads has been under active consideration for a number of months. Several joint tariffs for the interchange of traffic between the rail and water carrier have already been published, and a much greater number are being compiled.

The correlation and co-ordination of rail and river is the objective sought by this Government River Service. By means of this, the economy of water transportation will not be confined, as hitherto, to the communities situated on the banks of the river, because by the issuance of through bills of lading and joint through rates, shippers living in communities far from the river banks are enabled to enjoy the same 20 per cent reduction in the river freight rate which is offered to communities along the river.

It remains to demonstrate the efficiency of the equipment especially designed for the service, and the 14 months' experience entirely justifies the forecast of Inland Waterways Committee, which formulated the plans for the operation, that the Mississippi River can furnish economies in transportation as well as additional transportation of great value to the commerce of the country.

None of the new towboats have yet been delivered, and the lack of them is a serious drawback, but five of the new 2000-ton barges are now in service, and the chartered towboat Barrett is at the time of writing, December 4, nearing New Orleans, bringing down a tow of four of the new barges and three of the old ones, containing 250,000 bushels (7500 tons) of wheat and 1800 tons of general package freight.

STATEMENT SHOWING RECEIPTS AND SHIPMENTS, IN TONS, OF WATER-BORNE TRAFFIC FOR YEAR 1918.

Commodities,	St. Louis and Cairo.*			Cairo and Memphis.*			Memphis and Vicksburg.*			Vicksburg and New Orleans.*		
	A	B	Total	A	B	Total	A	B	Total	A	B	Total
Grain and products.....	24,377	24,377	.....	21,178	21,178	216	35,448	35,664	.....	67,081	67,081	.....
Cotton	550	550	.....	3,075	3,075	.....	25,294	25,294	.....	10,855	10,855	.....
Cottonseed and products.....	886	886	.....	3,278	3,278	.....	15,191	15,191	.....	9,559	9,559	.....
Livestock	7,760	7,760	.....	1,305	1,305	50	7,812	7,862	.....	2,894	2,894	.....
Coal and coke.....	15,821	16,166	25,987	7,976	122,107	130,063	7,940	24,630	32,570	24,374	88,779	113,153
Lumber	1,398	1,398	1	12,597	12,598	94	14,746	14,840	107,188	8,084	115,272	.....
Logs	22,200	22,290	.....	317,390	317,390	.....	270,653	270,653	.....	44,870	44,870	.....
Iron and steel.....	65,445	65,445	1	65,498	65,499	341	4,412	4,753	.....	2,739	2,739	.....
Groceries and provisions.....	929	4,825	5,754	54	5,120	5,174	236	23,137	23,373	406	142,414	143,814
Oil	1,959	1,959	1	2,486	2,493	155	24,455	24,610	60	2,207,061	2,207,121	.....
Stone, gravel and sand.....	37,087	51,314	88,401	5,400	29,384	27,784	57,287	29,009	351,296	22,891	124,342	147,241
Miscellaneous	2,303	44,962	47,265	3	44,824	44,827	36,965	29,010	65,975	5,600	24,056	29,656
Total.....	56,140	235,842	291,982	13,442	621,242	634,684	103,264	768,897	872,181	160,521	2,733,734	2,894,255

A—Handled by Government vessels.

B—Not handled by Government vessels.

*Each stretch is treated as a separate river, and tonnage carried between ports on different stretches will appear in the statistics of all intervening stretches; consequently, the sum of the tonnage carried in the four stretches does not represent the total traffic on the river as a whole.

History and Development of the Cottonseed Oil Industry in America*

By DAVID WESSON, Manager Technical Department, Southern Cotton Oil Co., New York.

Up to the time of the Civil War, and in fact for some time after, the disposal of cottonseed was always more or less of a problem. Much of it was used for fertilizer, and a great deal of it was thrown into the water courses.

In 1857, the State of Mississippi passed laws fining gin owners who allowed seed to accumulate at gins located near towns and villages, where it was apt to become a nuisance. The fine was \$20 per day after the fifth day.

Another law imposed a fine of \$200 for throwing the seed into water courses, the waters of which were used for drinking and fishing.

The industry began to assume some importance just prior to the Civil War, after which it commenced to grow.

In 1860, there were seven factories employing 183 workers. In 1870, 26 factories employed 644 workers, while today about 900 factories give employment to about 20,000 workers and 5000 officers and other salaried men.

The causes for the rapid growth of the industry are various.

First—The rapid increase of population all over the civilized world made increased demands for food. The doing away with the large cattle ranches of the West reduced the meat supply so that the hogs which formerly furnished an adequate supply of lard were more and more eaten as pork and a demand was made for an edible fat to replace the lard. This demand is largely met at this time by cottonseed oil and the growth of the cottonseed oil industry is largely coincident with the decrease per capita of the hog lard supply.

Second—The cottonseed oil produced in the early days of the industry was very irregular in quality. In 1879 it was used in small quantities to adulterate lard, but the quality was such that it did not improve the mixture. The application of chemistry to the industry at this time started it upon a rational basis and gave such a stimulus that it has grown by leaps and bounds ever since. The advent of the chemist started improvements in the quality of the oil and at the same time pointed the way to economies in production.

The most important work of the chemist has been in refining the oil and improving the products made therefrom. To do this principles had to be established in the laboratory and applied in the factory. In 1885 all the chemists in the industry could have been counted on the fingers of one hand. This included near chemists.

At that time the duties of a refinery chemist included testing the oils, refining them, and finally shipping them in suitable cooperage. To do this he had to run pumps and engines, boss the coopers and steamfitters and be a steamfitter himself in an emergency. There was no eight-hour day with Saturday afternoons off and, needless to say, the early chemists earned their pay and incidentally the refinery force did likewise.

The young man fresh from school and thrown on his own resources in a refinery soon became a chemical engineer without knowing it. In some ways the chemists of those days had an advantage over those of today. They were blazing their way through an untrdden field little hampered with enlightening literature. They were guided largely by their ingenuity and experience, which later gave them a great advantage. In those early days anyone who could refine crude cottonseed oil was regarded almost as a demigod. Very few of the early refiners employed chemists, and depended entirely on trained workmen. Many of them were negroes. Little attention was paid to loss. Caustic soda was added by rule of thumb and the losses were enormous. Where losses were estimated, the measurements were crude. I have in mind one manufacturer who pumped all the oil from the crude mill to his refinery, where it was refined by a \$2-a-day negro with marvellously small losses. The owner was always bragging how much better Sam could do than any high-priced chemist. The time came when this outfit was put under my jurisdiction and on investigation it was found that Sam was always charged with much less crude oil by the mill than he

actually received, which was, of course, a great help in cutting down the apparent refining losses. As a matter of fact Sam was actually running about 2 per cent behind plants operated under chemical control.

The first crude oil was used for paint and burning in lamps. The early refineries kept their methods so secret that it has been difficult to discover when oil was first refined in this country. The writer remembers being told in 1870 that peanuts were pressed to obtain oil which was mixed with that of the cottonseed and sold for olive oil.

The early refineries were connected with the oil mills, but there soon arose people who recognized that refining the crude oil as furnished by the mills was an industry by itself and refineries started in several places.

The crude oil in the early 80's was sold on color and flavor and in case of disputes referred to committees. About this time the chemists discovered that free fatty acid in the crude oil was an index of quality and refining loss and applied the test in judging value of samples. A small rule to see if the samples of crude would refine to a good color. The writer used this method in Chicago in 1887 and when in 1890 commenced to reject oil in New York on account of high acidity encountered much opposition. Some mill owners protesting that they had never had any fatty acids on their premises.

Shortly after 1880, cottonseed oil began coming to Chicago in considerable quantities. Here it was refined with caustic soda, bleached with fullers earth mixed with prime steam lard and oleo stearine and went into commerce as refined lard.

In 1887, it was discovered that more lard was shipped from Chicago than came there either on the hogs killed there or as lard itself. Congress started an investigation and discovered that cottonseed oil was the cause of this great increase. They also discovered that the 30 to 40 per cent of oil in the compounds did not injure them from a health standpoint, though the oil used at that time did not improve the flavor.

About 1892 or 1893, the practice of deodorizing was started in Chicago. This consisted in heating the oil in a tank provided with a large steam coil and then blowing live steam through the oil to remove flavor and odor, the oil was afterward cooled to normal temperature. This process while producing a greatly improved oil did not turn out a perfect one by any means. It allowed the lard-substitute maker, however, to use a mixture of about 82 per cent of oil and 18 per cent of oleo stearine, which proved quite satisfactory to the trade.

In 1890 the "Wesson Process," so-called, was discovered and the first plant was put in operation in Savannah the following year. The product of this plant set a new standard for cottonseed oil, which has now become the chief source of edible fat next to butter in this country. From the discovery of the Wesson process to about 1910, lard substitutes were made almost entirely of mixtures of oleo stearine and deodorized cottonseed oil. The packer controlling the former put its price very high and the demand for a cheaper material was supplied by the discovery of the hydrogenation process, which fulfilled the dream of the fat chemist by furnishing a ready means of saturating the double bonds of the fluid oils with hydrogen and converting olein and linolein to stearine. By passing hydrogen gas through oil at a temperature of 180 to 200 degrees C. in the presence of finely divided nickel cottonseed oil can be hardened to any extent up to a melting point of about 60 degrees C.

The lard substitutes of the present day are almost entirely produced either by partially hardening the whole oil or by adding a percentage of the completely hardened oil to that which has not been so treated.

Besides the use of the oil in lard substitutes which utilizes at present about 75 per cent of the total production, large quantities are used for table oils, oleo margarine or margarine, as it is called in Europe. Considerable oil is also used in medicine.

In refining the oil an average of 9 per cent is taken out by the alkali in the form of soapstock. In the early days this was made into cheap laundry and mill soaps. Later it was made into

*Extracts from paper read before the American Institute of Chemical Engineers, December 3, 1919, Savannah, Ga.

washing powder by first saponifying and washing, then mixing with soda ash or sal soda.

At best the soaps made directly from the soapstock were poor in color and possessed an unpleasant odor.

It is the practice in several large plants to decompose the soapstock with acid, then saponify by the Twitchell process or otherwise and distill the fatty acids from the black elastic pitch which remains. This pitch is used in making paints used for roofing. During the war considerable quantities of glycerine were recovered from the soapstock, but on account of changed conditions it has been found better to treat the soapstock with centrifugal machines of the cream separator type and recover a considerable quantity of the entrained neutral oil.

The first crude oil mills were somewhat primitive compared with those of the present day.

No attempt was made to separate the lint from the seed before passing through the hullers. In those days the seed carried so much lime it was customary to figure meats and hulls as equal in quantity. The early mills burned the hulls under the boilers together with the trash in the seed. The separation was very poor and the hulls frequently carried large quantities of uncut seed and meats, which helped account for the high hull percentage.

The separated meats were crushed between rolls, cooked in jacketed heaters and pressed in box presses provided with thick camel's hair mats between which the bags holding the meats were placed. The yield of oil was small, a large amount being left in the cake and lost with the meats which went into the hulls.

An important by-product of the old-time mills was hull ashes, which amounted to about 20 pounds per ton of hulls and were rich in potash and phosphoric acid. Actively the ash present was several times that recovered. On account of the character of the hulls much of the ash went up chimney. About 1887 it was found that the hulls could be used for fodder and cows have been eating them at increasing prices ever since. At the same time plate presses superseded the old boxes and better work was done in the pressrooms. Linter or linter gins were also installed and the short fibers or lint was partially removed from the seed before hulling.

In 1887 the writer started a small laboratory in Chicago for analyzing mill products for the American Cotton Oil Co., which had just come into existence. The results on 244 samples of cake showed an average of 13.55 per cent oil, while 226 samples of meal averaged 12.18 per cent. Hulls were not analyzed, but inspected for meats and uncut seed. This was the beginning of mill control work in the industry. It has caused great economies and pointed the way to the use of better machinery. At the present time the meal runs from 6 to 7 per cent oil.

The cottonseed cake has always been either exported as such or ground into meal and used as a cattle food or fertilizer.

One of the latest developments is the extraction of the oil from the cake and meal by solvents. At present prices this is a profitable industry. There is no good reason why solvent extraction should not be applied to the entire meats, cutting out the pressroom expense and recovering 50 to 60 pounds of oil per ton of seed. If this were done it would have saved last year nearly 500,000 barrels of oil worth about \$34,000,000. There is nothing to prevent this development except fear of fire risk and investment of capital. It is a comparatively simple engineering problem which many of us will doubtless live to see accomplished.

This table shows the seed crushed during the year ending July 31, 1919. It does not take into account the increased value added to the product by refining the oil and converting it into lard compounds, table oil, etc. This would call for an addition of about \$50,000,000 making a grand total of \$427,397,000 added to the wealth of the country by the cottonseed oil industry.

Seed Crushed, tons.....	4,450,188	\$70.00	\$311,513,230
Oil made, lbs.....	1,319,926,000	17.50	23,900,000
Cake and Meal, tons.....	2,158,787	50.00	107,939,350
Hulls, tons.....	1,124,118	15.00	16,861,770
Lint, bales (500 lbs.).....	929,99	4.67 lb.	21,696,797

Total value mill products..... \$377,397,917

The United States Department of Agriculture reports that high-class, well-graded American apples will bring the maximum price in the markets of Great Britain. Shippers are urged to be particularly careful of their pack.

Increasing Storage and Marketing Facilities at Tampico.

Tampico, Mexico, November 29—[Special.]—During November the Mexican Aguilas (Eagle) Petroleum Co. added approximately 150,000 barrels a day to its crude petroleum production in the Tampico fields. This big yield comes from three wells, and was obtained within a period of 12 days. Each well had an initial production of about 50,000 barrels, and the quantity has increased, if anything, since the wells were brought in. Since the company passed into control of the Royal Dutch-Shell interests a more active drilling and marketing campaign has been inaugurated, and its Mexican properties are to be exploited on a more extensive scale than ever before, it is authoritatively stated.

Another recent addition to the producing wells is that of the Mexico & Boston Leasing Co., which brought in a well of 3000 barrels capacity in the Panuco field. The company is well prepared to handle the well's output, as it has just finished the erection of a 55,000-barrel storage tank and has its leading racks ready.

It is announced that the two wells of the Texas Company in the Tepetate field, which were flooded with salt water recently, have been reopened and are yielding about 5000 barrels of oil a day, as compared with 80,000 barrels a day before the influx of salt water.

The storage facilities of the Texas Company are to be greatly increased by the erection of 11 new steel tanks, each of 55,000 barrels capacity. Five of these storage tanks will be located at the Las Matillas terminals of the company and six at its tank farm at Aguia Dulce.

The Atlantic Gulf & West Indies Steamship Co., which through its subsidiary, the Aguias Oil Co., is operating extensively in the Tampico oil fields, has just finished launching here a concrete barge which was constructed at the Oklahoma Iron Works under the direction of G. T. Frix. It will be used in the oil trade. Another and larger barge will be started immediately for the same company.

The Island Oil & Transport Co. expects to be able soon to handle for export 1,500,000 barrels of oil a month through its Palo Blanco terminals. It has erected eight steel storage tanks of 55,000 barrels each, and will have two pipe lines, each of 25,000 barrels daily capacity, in operation soon.

The Huasteca Petroleum Co. now has in service about 70 oil tank steamers, having just added five to its fleet. These five vessels each have a cargo capacity of 75,000 barrels of petroleum.

Many American visitors to Tampico are expected during the present winter, in addition to the oil men who come and go in large numbers. The fact that direct lines of steamships are now in operation between United States ports and Tampico makes the winter voyage one of comfort and real pleasure, it is pointed out. Very few visitors arrive and depart from Tampico via the railroad routes, due to the uncertainty of transportation and the danger of attacks by bandits.

Cotton Association Membership to Unite Allied Interests.

According to J. Skottowe Wannamaker, president of the American Cotton Association, every cotton State will have perfected in the near future a State division of that association, with the exception of Texas, which will organize early in January, 1920.

The State divisions, with their full quota of officials, constitution and by-laws, will at once proceed to organize county and township or district associations. When this machinery for organization has been completed, each State will then put on its effective drive for individual memberships, and there will be no halt in the work until at least 1,000,000 active members have been enrolled. This membership will be made up of farmers, bankers, merchants, warehousemen, ginners, various allied corporations, professional lines of business, teachers, individuals, etc., who endorse and approve of the objects and purposes of the association. Such a membership uniting all branches of and dependencies on the cotton-growing interests of the South will have the power and effect of so protecting the handling and marketing of the cotton crops of this country, that no kind of manipulation and speculation can prevent the growers from receiving fair and profitable prices for the staple each year.

Vocational Training and Broader Education As a Solution of the Labor Problem

By T. C. CLARKE, Member American Society Civil Engineers, Vice-President International Coal Products Corporation, late Colonel One Hundred and Tenth Engineers, U. S. A.

"A little knowledge is a dangerous thing;" looking at Russia we conclude that "No knowledge" is still worse.

England has recognized the fact that if she is going to keep her labor where it will be labor and not dictators she must educate the next generation along the line of right thinking. We say "Knowledge is Power." If this be so, is England putting power in the hands of the coming generation and, if so, power to do what? She believes that by educating her young workmen she is giving them the power to think and think for themselves, instead of taking the word of some ranting labor leader whose only claim to prominence is his gift of oratory and lack of sense—except that which might perhaps be described as a low order of cunning.

England tried the experiment of night schools for her workmen; free schools taught by experts in their line, but they one and all reported that with the exception of the boys who were gluttons for education the others were too tired from their day's work to assimilate even one hour's talk. It was a discouraging condition for the men who were trying to learn.

Some of the larger corporations in England recognized this fact and adopted a system of giving the apprentices time off—under pay—either in the morning or in the afternoon; a great many of the companies even going so far in some cases as to have two employees working in the one shift, although I admit those who did this were extremists. They decided the money spent in educating these young men of England was insurance against the future, because a man who uses his mind, even though his education follows along the lines of his own work, is going to be a better workman, a clearer thinker when problems are presented to him, and a more balanced human machine in every way. They are thoroughly convinced of the economic soundness of this view and their staffs are being utilized to expand the minds of these young men.

It sounds Utopian to spend money privately on the education of men when you have been taxed for their education, but the soundness of their views will, I think, unquestionably be proven in the next 10 years when this propaganda has had time to make itself felt in the young men of England.

If in our proposed system of universal service this sort of education were given, and the men, during their leisure hours, made to learn to study and made to appreciate that their minds were capable of expansion and that pleasure could be taken in study, it would be of splendid assistance to those who afterward adopt some such system as the English have developed. It is hard to realize the mental lethargy that exists in this country. I had in one company of drafted men in my regiment 23 illiterates.

If this condition can exist in the United States, why is it surprising that the workman follows blindly anybody who can tell him a good story, that appears to be to his benefit? One does not wonder why strikes occur on occasions and under conditions which point out plainly that the purpose of the strike is to enable the labor leader to assert his position under these conditions. Granted that a heavy percentage of our labor is foreign, their children are the nucleus of our future labor and, to use Roosevelt's term, the "melting pot" must get them and develop a man who can think for himself and whose knowledge will enable him to appreciate the privilege of living in this country.

To be sure, here we have practically no general system of apprenticeship such as they have in England, where you are sure of your young men's services for a definite period of time at least, but it can hardly be doubted that if the employers started some educational system, whether that particular young man remained with them over a period of years or not, they would ultimately get direct benefit from it.

In starting an educational scheme of this kind thought should be given to make it an incentive for the young men to take full advantage of the lectures or demonstrations given them. A system of award should be instituted whereby the men who do well are approximately rewarded, either by direct monetary benefit or by being placed in a class which will entitle them to promotion

ahead of the others. As a by-product of this educational system you have your men classified and you should be able to get best results out of the men whose aptitude along certain lines has shown the particular thing for which they are fitted. For example, in a steel mill you would not have the boy try to become a locomotive engineer because it happened to pay more money, but you would assign him to some other job for which mentally he is much better fitted. From this sifting of the wheat from the chaff better efficiency must result and all that is necessary is to inaugurate a system of this kind to insure its success.

Take, for example, the post-graduate course of the Germans. Any boy who can possibly raise the money and who has any mental aptitude at all takes a post-graduate course, as it insures him better earning power throughout his entire after life and a better standing in the community than one who does not. What is the result? Germany, before the war, had a mass of young students who in the post-graduate course had to write a thesis on an original subject assigned them by their professors. Who can doubt that where a great number of young men are making original research some benefit must accrue as a result therefrom? Take chemistry, as an example; Germany's study of the coal tar situation has developed the never-ending ramifications of this yield from coal. The same is true of engineering, or any of the arts where you have a number of students whose minds for four years have been trained to study and concentration. Given the leisure and the opportunity for research a certain percentage is bound to present something useful and new.

While I am not comparing the trained student with the young working man, I do say that the young working man, with the mechanical knowledge gained in his work, is going to invent labor-saving devices; that he is going to see more clearly the daily problems presented to him at his work, and that he is going to give direct economic returns from the expenditure necessary to operate as comprehensive a plan of education as is contemplated in England.

Who does the teaching? In England, the man I talked to on this subject was the technical reporter for the London Daily Telegraph, the volunteer teacher who gave certain hours of his day to the education of this type of young men. Before the war, at Leeds, I talked with the general manager of one of England's largest companies building by-product coke ovens and found that he was giving his time and service for this purpose.

On the staff of a steel company, a coal mine, or whatever the industry may be, there is always some man or men who have ability to teach, and while in a comprehensive scheme of this kind it would not be fair to ask them to give their services where perhaps the opportunity for their promotion might be interfered with, yet an arrangement could be made that would compensate them for specializing in this subject. Those men who went through the training camps and the schools in France will realize how easy it is to develop the amateur teacher from among the men one meets in everyday life who would never have taken up teaching as a profession, because of lack of remuneration or because dealing with young students is uncongenial to them, but who when asked to teach the young men officers in the army were not only able to do it but did it very well. This feature is one which I know would be considered a stumbling block by many who have neither the time nor the inclination to go through their staff to find the material that is essential to starting an educational scheme; but they will be surprised if they will take time to make a few inquiries to find how many men are able to think on their feet and explain clearly and forcibly in simple English the details of their subject.

We talk of key industries and how coal is necessary to the national life and how the railroads must be made to operate. After all, what does it mean? The only real key to industry is LABOR. Without labor your coal and railroads, your homes and your sustenance are not operative. Granting, as everyone must, that labor is essential to life, then the sooner we recognize

that the easiest way and raising the wages of labor does not cure the labor evil. It is unquestionably true that every employer of labor has his mind on this subject. Every thinking person realizes that the problem is at present unsolved. Raising wages is not a solution of the problem. Shorter hours are not a solution of the problem, but better working conditions, better treatment of the men, and longer hours and greater production, I believe, are the solution. Every employer of labor knows that the moment men reach a position where they are earning more than

they actually need they become idle, take time off, and require a higher percentage of floating labor around the job than the work justifies. Then the cry begins that there is not enough work for every one, when as a matter of fact if the men would work regularly there is plenty of work for those who do wish to work regularly and the floating labor could be spared to go elsewhere and secure work.

It is my firm belief that vocational training and mental stimulus is in the long run the solution of our labor problems.

The Result of Our Failure to Go "On to Berlin"

[The Bache Review.]

General Foch's plea for continued unity and guaranteed protection of France is that of an observer unprejudiced by politics, unswayed by the violence of crossing opinions generated throughout the world by the bungling leadership which brought about the armistice instead of a victory peace; which strung out the terms of the treaty by insisting upon intertwining with it the crude and impractical provisions for an idealistic League. If Foch and such as he had had complete control, the military Germany would have been crushed and dismembered, the terms of peace would have harnessed and suppressed opposition and unrest among the nations and violence at many points, the world would by this time have been, for many months, at rest and working out its salvation soberly.

The New York World has done a great service in obtaining from General Foch his views as to the needs of France at this time, when straight, hard-headed conclusions are of special value. We can quote only parts of his statement, but it should be read in full by every American.

"France," he says, "is entitled to find in the peace real guarantees of its security, insured by the line of the Rhine, instead of having only the protection of theories or leagues of an improbable stability."

Barriers cannot be dispensed with. The French have only one barrier—the Rhine—and where the Rhine is, there is the guarantee. "I consider that only the possession of this line is able to assure the safety of my country."

Americans would understand, he says, if they had seen the devastated regions of France. What they mean, these ravaged departments of France, is abominable, awful.

"France has been terribly ravaged, several of her departments have been thoroughly devastated. For a long time she will be unable to produce, unable to export. On the contrary, she will be obliged to effect purchases in foreign markets. She will be compelled to import goods and raw materials. Not only the complete destruction of her north and east regions, but also the demolition of her factories and industrial stocks will prevent her manufacturing for some time to come.

Our Interest in Rehabilitation.

"In addition to this, her financial situation will hamper the revival of her impetus to work. The heavy taxes which will burden her future budgets will hinder her from taking up her activities for a long time to come. To get through the crisis of peace, France requires the assistance of her Allies and friends. This help should be secured to her.

"It is of the greatest concern to the United States to prevent Germany from again getting the control over French markets. It is to its interest to prevent us being obliged to buy even our clothes in Germany.

"And this would undoubtedly be the case if the French nation were deprived of the economic assistance of America. It is rather curious to note that the present financial and economic situation in Germany is much better than ours. Her towns, villages and fields were not made desolate as were many of ours. Her factories were not destroyed. Besides, the financial burdens that Germans have to support are lighter than ours.

"I think that at present it is superfluous to talk about the League of Nations and the protection it can assure us. At present it is only a scheme. We have not yet put it into practice. How can a League which does not exist protect us? The League of Nations is a great expectation; it is not a fact.

"As for ourselves, we must keep an army, for in Germany the military spirit is not dead; it is only asleep, and it will soon

reawaken. Germans already think only of their revenge. The idea of revenge is in all German minds. The officers, the professors, will inculcate again this idea in the minds of young Germans. We cannot remain unarmed with such a Germany facing us—a Germany which was neither crushed nor dismembered. She will start again when she is able to do so."

Foch's grave claim that possession of the Rhine barrier is necessary to the safety of France is no after-thought with him. It was one of the insistent claims of the French representatives at the Versailles Conference. It was the business way of settling for all time the safety of France against Germany. Why was it not granted? Only because Wilson steadily and arbitrarily opposed it. No pronounced pro-German could have done greater injury to France. The French representatives did not yield at once, and only finally, when supposing Wilson to represent the American nation, they consented upon his promise of the Anglo-French-American contract. It is for the Senate now, at once, to complete this latter treaty, which pledges to France unreserved American support against German aggression; and the whole loyal-thinking American people will be back of them in such action.

Regret—Not Repentance.

Mr. Wm. P. Hamilton of the Wall Street Journal, corresponding with that paper from Berlin, finds only regret that the war was lost, but no repentance. He hears a German banker say: "The destruction of the French coal mines was a crime," and thought at last that he had found one German who realized the atrocious character of the war, but the sentence was not complete. The man added: "It was a crime against Germany." If it helped Germany, nothing was a crime against France, but the German people see that the destruction of the French mines at the time it occurred, when the military party must have seen that they could not win and that they might lose, with inevitable reparation, meant that the French would insist on the surrender of the coal mines in the Saar Basin, at a time when Germany would necessarily be desperately put to it for fuel.

Fuel in Germany, as it is here, is now the crucial thing, and Mr. Hamilton predicts that the experience of a freezing winter without fuel there will cause another revolution in Germany, far worse, far more irresponsible than the comparatively peaceful overturn which has established at least some sort of a stable government.

Large Clay Products Plant at El Paso Owned and Operated by Union Labor.

El Paso, Tex., November 28—[Special.]—It is stated that the brick manufacturing plant of the International Brick Co. at El Paso is the largest industrial enterprise owned and operated by union labor in the United States. This plant was built more than five years ago at a cost of \$400,000. It has been in steady operation ever since it was finished. It has a daily output of 400 tons of clay products, which include brick, hollow building tile and drainage tile. It gives employment to 120 men, and its annual payroll amounts to about \$78,000. The industry has proved very profitable, it is claimed.

The International Brick Co. is composed of representatives of the International Bricklayers, Plasterers and Masons' Union of America. A few years ago the members of this union conceived the idea of investing some of their surplus funds in a brick plant, and El Paso was selected as the ideal location for such a plant. This was because El Paso is a large consumer of brick, and there is plenty of material in the vicinity for its manufacture.

\$1,000,000 Hospital Building Provided by Tennessee Coal, Iron & Railroad Co. for Its Employes

[Special Correspondence Manufacturers Record.]

Birmingham, Ala., December 4.

The fine new hospital constructed by the Tennessee Coal, Iron & Railroad Co., a subsidiary company of the United States Steel Corporation, was opened for patients about November 1, and will be known as "The Employes' Hospital" of the Tennessee Company. Built at a cost of \$1,000,000, it typifies the spirit of the steel men of the country in caring for their employees.

The four-story building is of limestone, brick and terra cotta construction, is fan-shaped to provide a maximum of light and air, and contains space for approximately 400 beds.

The building is absolutely fireproof, the only wood in its construction being some of the doors and door frames. All floors are of tile or terrazzo and the walls are of concrete and metal lath. Even the windows are of steel.

There are 16 wards of 20 beds, each ward provided with its



APPEARANCE OF ONE OF THE WARDS.

sun parlor; four 10-bed wards for children; 30 rooms so situated that they can be used for isolation of patients with communicable diseases, and 25 private rooms for special cases. The large roof, with a splendid view of the mining and manufacturing district, is equipped with pavilions for open-air treatment.

That part of the hospital used for patients is divided into sections of 50 beds each, any one of which can be completely isolated from the remainder of the building. Each section is provided with a complete electric silent call system.

A model laundry is in the English basement, the main kitchen

and staff dining-rooms on the first floor, the laboratories and X-ray-rooms on the second floor and the operating-rooms on the third floor.

The mechanical equipment of the building is complete in every detail and includes three automatic electric elevators; a circula-



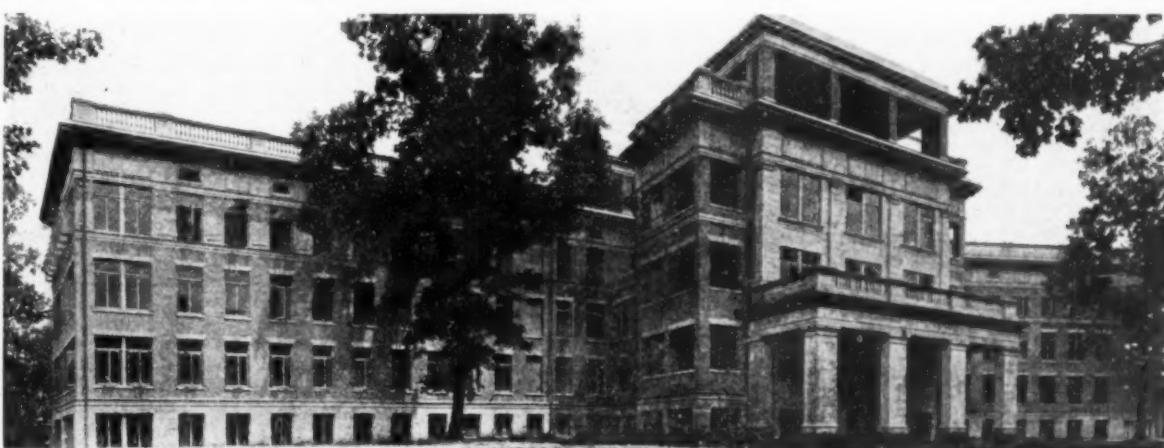
CHILDREN'S WARD IN CENTRAL HOSPITAL.

ing ice-water and coil ice-box system; an automatic telephone system and a complete air-washing and circulating system. The power-house in the rear of the main building contains the boilers, emergency electric generator, the ice machinery and electrically-driven pumps.

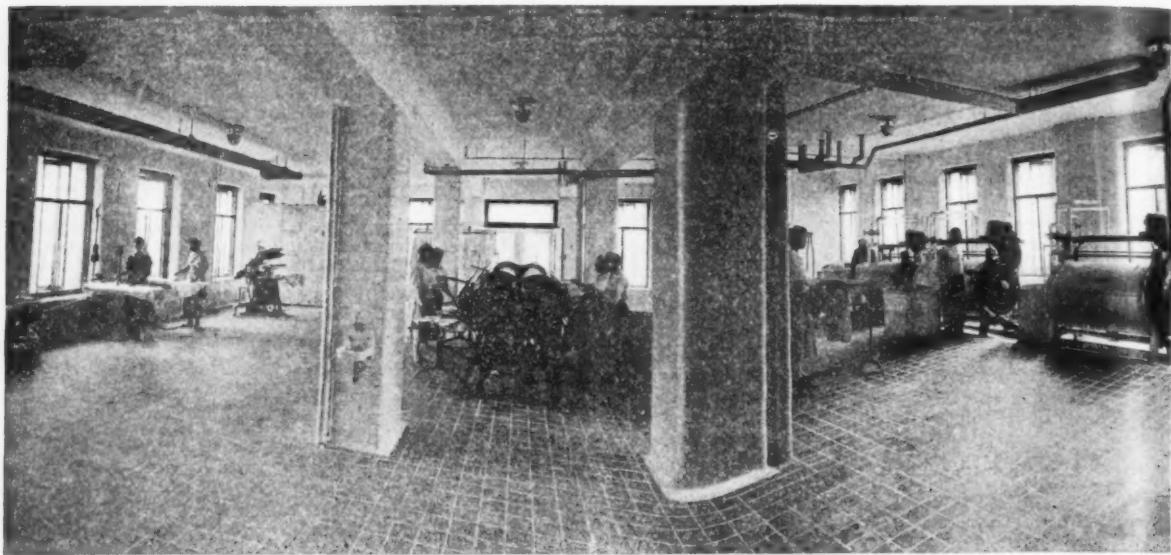
The building is steam heated throughout, steam being generated with by-product gas brought from the company's by-product plant nearly a mile away. All cooking, both in the main kitchen and in the section diet kitchens on each floor, is done by steam or gas, thus eliminating the dirt, smoke and ash of coal burning.

By far the most radical departure from existing methods of hospital treatment in the South is the policy represented in this building for the handling of negro patients. This is shown by the fact that the wards and rooms for the treatment of negroes are exactly similar to those provided for whites, no distinction save absolute segregation being made.

This hospital has been built with the belief that it will supply a long-standing need of the employes of the company and their families, providing not only the best obtainable means of treating



GENERAL VIEW OF NEW \$1,000,000 HOSPITAL BUILT BY THE TENNESSEE COAL, IRON & RAILROAD COMPANY FOR ITS EMPLOYES AT FAIRFIELD, ALA.



LAUNDRY IN BASEMENT OF THE EMPLOYEES HOSPITAL OF THE TENNESSEE COMPANY.

the sick, but also a valuable agent in the prevention of sickness. For instance, when a case of typhoid fever, pneumonia, diphtheria, scarlet fever, menses or any other acute communicable disease develops in the average household there is every chance of other members of the family being infected and, as a matter of fact, what is known as "contact infection" is very generally the rule. The hospital will enable every employee to quickly remove this danger from his home and community and at the same time will assure him of far better treatment for the patient than can possibly be given in the home.

The same thing applies to all types of illness, from child-bearing to elective or emergency operations, for the hospital will provide for any ailment far greater comfort and better facilities for rapid recovery than can be obtained in the home.

Production Well Sustained in Texas Oil Fields.

Austin, Tex., December 4.—[Special].—In the eight counties of Central West Texas, where producing oil fields are situated, there were 320 wells drilled last month. Of this number 238, or more than 74 per cent, were producers, 12 were gas wells and 70 were dry holes. But for the lack of transportation facilities probably 300 more wells would have been finished during the month. Most of these unfinished holes are down to a point within a few feet of the pay sand, and can be brought in at any time. The percentage of producing wells is keeping up remarkably well, and shows that no early exhaustion of the different fields may be expected.

The total new production for the month was 133,000 barrels daily average, or an average of a little more than 560 barrels for each producing well completed. Eastland county led in the number of wells completed, but came second to Wichita county in the total of new production and the average per well. A total of 120 wells were completed in Eastland county, of which number 101 were oil wells with a total new production of 54,500 barrels, or an average of about 535 barrels to the well. A little more than 86 per cent of the Eastland county completions were oil wells.

In Wichita county there were a total of 135 completions, of which 93 were producing oil wells. The new production for the county was 61,500 barrels daily average, or an average of about 660 barrels to the well. A little less than 69 per cent of the completions in this country, however, were oil wells, about 31 per cent being represented in gas wells and dry holes.

Stephens county accounted for a total of 38 completions, 33 of which were oil wells with a new production of 14,000 barrels, or an average of more than 430 barrels to the well. More than 84 per cent of the Stephens county completions were producers.

Eight counties in the north and north central part of the State figured in the production figures for the past month. Wichita

county led all others, with Eastland county coming second and Stephens county third. Other counties that accounted for production during October were Wilbarger, Palo Pinto, Erath, Callahan and Comanche.

By Repairing Open-Top Cars Much-Needed Equipment Would Be Available to Manufacturers.

ALEXANDER HARRIS, Manager Holston Quarry Co., Knoxville, Tennessee.

The open-top car situation for the handling of products other than coal is again demoralized, and we would like to bring to your attention certain facts which are in a great measure because of this order of curtailment and is manifest to anyone who is traveling through the country today.

The reason of curtailment of open-top equipment for other than coal-carrying purposes is said to be lack of equipment. There cannot help but be lack of equipment when hundreds of open-top cars needing only a few hundred dollars' worth of repairs are standing upon rip track of our many terminals and no effort is being made to put these cars in service. Not only the writer but hundreds of others have seen this condition and wonder why; also, they wonder how it is possible to allow these cars to stand idle when hundreds of manufacturers are daily closing down, not so much for lack of coal, but for lack of transportation facilities. The closing down of these manufacturers are throwing hundreds, and it will soon be thousands, of men out of work, and every business man appreciates that "An idle brain is the devil's workshop."

We know and appreciate that open-top cars are scarce at the present: we also appreciate that this would not be the case if proper efforts were made to put into service the idle cars that are now on a vacation in the rip track.

If this was a local proposition we would feel that it might be thought that it is a purely and simply a case of some one getting the better of the proposition than those in this section, but it is nation-wide and demands adjustment.

Sporting Goods.

THE SPHERE HOUSE, Sialkot City (Punjab), India.—We need the following goods from the United States: Sandpaper, glue, P. O. P. glassy and bromide for photography; other photographic goods as well. Ash frames of lawn tennis and gut twine for hockey-stick handles and cricket bats; oil engines, hand saws, circular saws, vises. We need these oil engines which start cold without preheating and these are of St. Marys, V. V. Lehighfield & Co. We manufacture sporting goods, especially hockey sticks, lawn tennis, cricket and hockey balls. Inflators of footballs, etc.; nearly all necessities of sporting goods. We need vulcanoid in abundance. We need to sell ours and buy those produced in America, i. e., change of products.

5000-Ton Floating Dry Dock Under Construction at Pensacola, Fla.

Pensacola, Fla., December 4—[Special.]—Thomas A. Johnson, secretary-treasurer of the Bruce Dry-Dock Co., is authority for the following statement to the MANUFACTURERS RECORD relative to the progress of the work at their plant:

The dock under construction, the estimated cost of which is \$450,000, is to be a five-section floating wood dry-dock, with a normal capacity of 5000 tons, but capable of lifting a maximum of 6000 tons, 380 feet in length over all, 94 feet beam over all, 78 feet 2 inches between wings, depth of pontoons 12 feet, and 18 feet over 3½ feet keel blocks. In connection with present equipment, which consists of five sections of 1200 tons capacity, this company will have facilities capable of lifting a total of over 7000 tons.

This equipment will enable the company to pick up a vessel 475 feet in length, having a displacement deadweight of 6000 tons or over, a carrying capacity deadweight of 12,000 tons and 7500 registered tons. The new dock is expected to be completed and ready for operation by May 1, 1920, at which time the repair plant, adjacent to dock, will also be completed.

Construction figures to November 19 on dry dock are as follows:

	Percentage Completed.
Erection plant, tracks, equipment.	95
Erection of framing, Section I.	88
Erection of framing, Section II.	83
Lumber received.	68
Erection planking, Section I.	29
Erection planking, Section II.	6
Wedging, Section I.	20
Wedging, Section II.	14
Steel castings, bolts, tie rods, etc., received	82
Castings erected, Section I.	100
Castings erected, Section II.	75
Tie rods, etc., erected, Section I.	100
Tie rods, etc., erected, Section II.	58
Fabricating lumber, section I.	89
Fabricating lumber, Section III.	87.5
Fabricating lumber, Section III.	25.9
Fabricating lumber, Section IV.	19.9
Fabricating lumber, Section V.	13.5

The dock was designed by James L. Crandall, consulting engineer, of East Boston, Mass. Paul H. Macneil of Washington, D. C., is on the ground, representing Crandall's interests during construction. General specifications give the following data relative to dock and its construction:

"A section floating dry-dock having a total lifting capacity of 5000 tons weight bearing upon a keel length of not less than four of its five sections. The dock to be of all-wood construction, designed of the sectional type, having five sections so constructed that when connected together they will form a substantially rigid dock. The connections between the sections, together with the truss members incorporated into the side walls of the dock, form a continuous truss over the whole length. The proportions of the several sections to be such that each or any section can be docked on one or two of the other sections, when necessary for the purpose of repairs or inspection. The connections between the sections to be by means of heavy pins, so made that they can be readily disconnected for self-docking purposes. The pumping of the dock to be obtained by means of vertical centrifugal pumps, placed in the bottom of the sections, one pump to each transverse compartment, and driven by separate motors, one motor being connected to each pump shaft at its upper end. Such ballasting

of the dock as may be required to sink it to the desired level to be accomplished by pumping water into the dock, the pumps and valves being arranged for that purpose. It is intended that the pumps and motors shall be of such capacity as will raise the dock with a 5000-ton ship in one hour of continuous pumping. The operation of the dock is intended to be controlled by the dockmaster stationed on the pier at the head of the dry-dock. The pump motors to be controlled from a central switchhouse near the dockmaster's station. The dry-dock to be equipped with a water-register system showing the level of the water in each of the several compartments at all times. The indicators of said water level to be placed at the end of the sidewalls, where they can easily be observed by the dockmaster. The dry-dock also to be equipped with capstans at each end of the sidewalls; a full line of relensing bilge blocks operated by chains, which are galvanized, and hand winches; and to have solid keel blocks of hard wood. For teredo protection the sections will be sheathed over the bottom and up the sides to above the loaded water line with two layers of sheathing, each comprised of a layer of felt put on with tar coating and covered with double thickness of creosoted boards fastened closely with galvanized nails. The entire dock to be built of wood similar in strength and weight to American longleaf pine, with the exception of bilge and keel blocks, which are to be of hard wood."

Contract for construction has been sublet to Aberthaw Construction Co., Boston, Mass., and is being handled by their Southern branch at Atlanta, Ga. C. R. Craig is superintendent of actual construction.

Entering into construction of the dock will be approximately 1,400,000 superficial feet of long-leaf yellow pine, which has been contracted for with Goodyear Lumber Co. of Buffalo, N. Y., who, in turn, are furnishing through Great Southern Lumber Co. of Bogalusa, La.; W. M. Carney Mill Co. of Atmore, Ala., and J. J. Newman Lumber Co. of Hattiesburg, Miss.

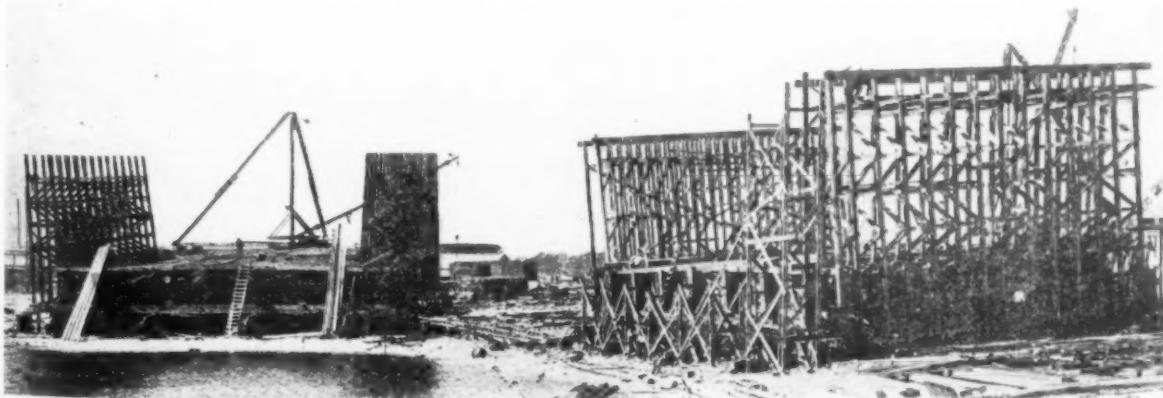
The steel castings, which will total approximately 147,000 pounds, are of special pattern and designed by Engineer Crandall, and according to specifications must be "substantially true to pattern and free from defects that would impair their strength. They must be of material having not over .06 per cent of phosphorus and not over .05 per cent sulphur. Test pieces shall show tensile strength of not less than 60,000 pounds per square inch, and an elongation of not less than 20 per cent in two inches." These are being furnished by Bethlehem Steel Co.

Truss rods, bolts, spikes, washers, round iron, clinch rings, iron keys, etc., totaling in weight approximately 280 tons, are coming from New England Bolt Co. of Everett, Mass.

The motors are 20 in number and are 20-horse-power 220-volt 3-phase 60-cycle 850 R. P. M. Type No. 19-TBPV squirrel-cage vertical alternating-current motors, without pulleys, and are being furnished by the Wagner Electric Manufacturing Co. of Boston, Mass.

The pumps, 20 in number, are to be 10-inch vertical centrifugal closed-impeller single suction pumps, purchased from F. H. Hayes Machinery Co. of Boston, Mass.

One hundred and seventy-five thousand pairs of white-pine wedges for caulking are to be used in making compartments watertight, and are being supplied by Radford & Wright Company of Duluth, Miss.



PROGRESS MADE ON FIRST TWO SECTIONS OF FLOATING DRY DOCK AT PENSACOLA, FLA.

What Are You Going to Do About Production?

By R. D. HATTON, Vice-President and General Manager Laclede-Christy, St. Louis.

"Production?"

Is this the one big solution to the present industrial crisis and to the high cost of living? Let us analyze; let us dig up some hard, cold facts:

First—What happens in one nation affects all others, whether it concerns money, materials or men. The man-power of the United States is immediately governed in its quantity and its efficiency by the man-power of the world. The labor supply of the world has been diminished by 7,000,000 able-bodied men who were killed in the war, plus 7,000,000 more whose injuries have made them unavailable for labor, plus a considerable number of other millions who are still in the various armies of the world.

Second—for five years no immigrants have entered this country from Europe, resulting in a shortage of 5,000,000 laborers.

Third—A great many of America's foreign-born who have been over here for years are now going back with their savings to the old countries.

And then, in spite of this greatly reduced man-power, the majority of men are insisting on working fewer hours than before the war. This regardless of the fact that the demand for merchandise is far greater than the supply. Why cannot labor see that the increased cost of living can be reduced only by increasing production or decreasing consumption, and if they won't do the latter, they must do the former.

The whole solution of our industrial ills consists in producing more than we consume, more than our neighbors consume, and in connection with other countries, more than the world consumes. Then, and then only, will prices fall, wages become stabilized and a sane, rational, new normal price level be established.

Now, what can we do?

First, we can all work harder and work longer, thus setting an example for those in our employ. We can preach the gospel of increased production to our workers, not by cramming the idea down their throats, but by putting the whole matter up to them clearly and sincerely, by means of weekly talks to them, by means of bulletins and house organs, by means of letters and circulars enclosed in their pay envelopes, by means of local newspaper advertising. In brief, there is need right now for a nation-wide campaign to sell contentment to American labor.

Show your men how in Germany labor is responding to the demand for production by working 12 and 14 hours daily; how even the German Socialists are preaching that production must be forced for the workman's own good. Tell them that our own Socialist, John Spargo, says: "The first great task of any Socialist society must be to increase the productivity of labor," and

that the American Federation of Labor says "the high cost of living can be reduced only through intensified, increased production."

Second, we can improve the quality of production. While production increased during the war, efficiency actually decreased, because efficiency can be calculated only in relation to cost, and the present high cost of living is ample proof that the minimum unit cost of production has not been attained.

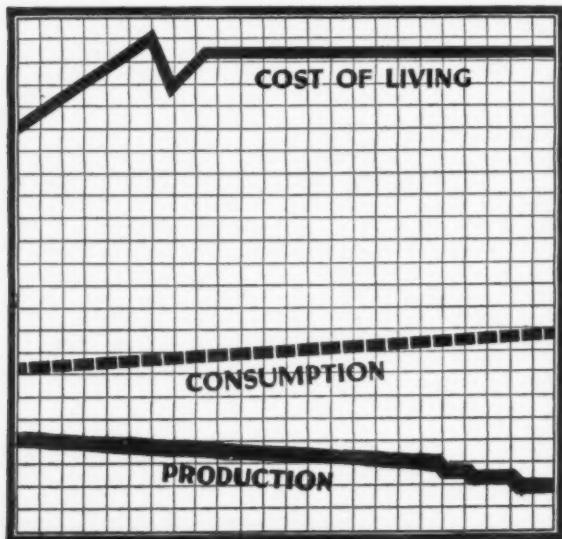
Manifold Opportunities Offered by South.

Washington, D. C., December 1—[Special.]—The United States Railroad Administration, through its agricultural section, J. I. Edwards, manager, has issued a booklet filled with glowing encomiums on the State of Arkansas and its resources and opportunities. This is the last of a series of booklets issued recently by the Railroad Administration, one for each of the Southern States from the Mason and Dixon line to the Rio Grande and from Florida to Missouri. The interest of the homeseeker and landseeker in the Southern States has exhausted the editions of several.

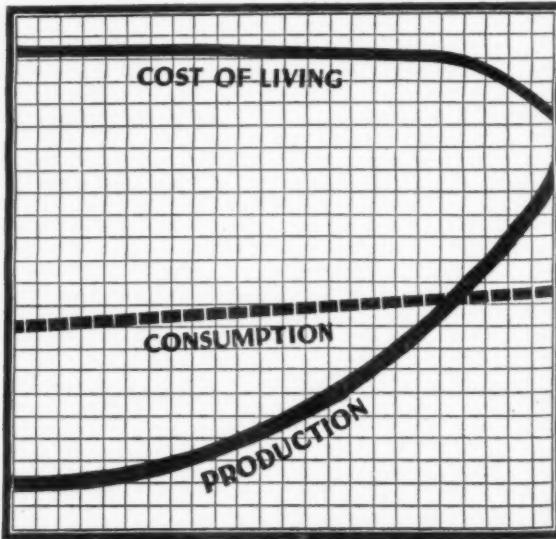
The booklets tell of the vast stretches of unutilized lands in the coastal plain, alluvial areas, Piedmont section, prairies and mountains of the South. It is shown that there are enormous regions capable of producing nearly every crop of the temperate and tropical zones; that the possibilities of raising stock, especially cattle, sheep, goats and hogs, are almost unlimited on the vast ranges of the coastal plain from Virginia to Texas, where stock can find grazing practically throughout the year, and that the South, if all her broad acres were put to their best uses, could feed all America, if not the world itself. Progress and improvement are shown in the construction of good roads, health and sanitary conditions, educational facilities and the like, despite which advantages land values in the South are generally low, thus giving unusual opportunities for settlers.

100 Years in Arkansas.

The Arkansas Gazette of Little Rock commemorates the founding of that publication 100 years ago by issuing an elaborate 240-page supplement, with a cover page in colors. This supplement is interesting and instructive from the standpoint of the Arkansas dweller or for the man who contemplates making that State his home. It contains a vast amount of information about the resources and the development of the "third State in rice," and shows in comprehensive fashion the Arkansas of the past and of the present day.



1919 CONDITIONS.



DESIRED CONDITIONS FOR 1920.

Florida As a Sugar-Producing State

FACTS AND FIGURES SHOWING POSSIBILITIES THERE OF SYRUP AND SUGAR INDUSTRY.

[In submitting the following article to the Manufacturers Record, Mr. Jones writes:

"I have traveled from Savannah, Georgia, to the Colorado River of Texas, across the cane belt of Georgia, Florida, Alabama, Mississippi, Louisiana and Texas, seeking information, besides reading books, bulletins, reports, and talking with parties personally on the subject. The more I have learned, the more I am impressed with the wonderful possibilities of growing excellent sugar cane and the manufacture of the same into the very finest of syrup and sugar right here in the State of Florida, and that, too, as cheaply and easily, perhaps, as elsewhere.

"It has been shown that there would have been a sugar shortage, even if the great war had not occurred, if the old rate of production had not increased, from the fact that the production of cane and beet sugar was falling behind the consumption, that is, not keeping up with the growth and demands of population. Of course, the damage to the business in Germany, Austria, Belgium and France makes the problem all the more serious for years to come. Now is the time and opportunity, if not the necessity, for the United States to grow its own sugar. And it can be proved that Florida can grow the very best of sugar cane, and that it can be manufactured into the very finest of syrup and sugar, just as easily and as cheaply as it can be grown and manufactured in Cuba, Puerto Rico, Hawaii or elsewhere, and cheaper and easier than it can be produced from beets in the best beet-growing regions. Therefore, I hope that what I have written may, in some measure, aid in the development of the business here in Florida."—Editor Manufacturers Record.]

By T. H. JONES, Industrial Agent M. & B. R. R. Co., Jacksonville, Fla.

Within the limited region from Charleston, S. C., to the mouth of the Pecos River of Texas, across Macon, Ga.; Montgomery, Ala.; Jackson, Miss.; Alexandria, La., and Austin, Tex., the average crop-growing season ranges from 200 to 240 days a year, about four-fifths of the time, and throughout most of Florida, along the coast of the Gulf of Mexico and in favored localities in Arizona the average season without killing frost is more than 260 days, according to the Atlas of American Agriculture. Within this limited climatic area is the sugar-cane belt of the United States, and what is believed to be the very best of it is in the State of Florida. According to Dr. Wiley, ex-United States chemist, "Florida's climate is certainly superior to that of any other State for sugar production." * * * "The soils, * * * are largely of a sandy nature; sand soils are not suitable for producing wheat. * * * But they are well adapted for producing sugar and starch." "In Florida it is more a question of climate than of soil, since, with a favorable climate, scientific agriculture will produce a crop from almost any kind of soil." "By the development of these great industries, sugar and starch-making, including table syrups, untold wealth will in the near future flow into Florida." "From by-products of the factories, immense quantities of cattle food can be obtained, both from sugar-cane and the starch-producing plants. Thus a dairy industry can be established in connection with sugar and starch-making, which will add much to the wealth of the State." * * * "In one particular industry Florida stands pre-eminent, and that is the manufacture of table syrup from sugar-cane."

A tour of inspection of the cane belt of South Carolina, South Georgia and North Florida was made by Dr. Wm. C. Stubbs, while director of the Louisiana Sugar Experiment Station, who thus reported it:

"A recent visit to the cane-growing regions of Southern Georgia and Florida has convinced me of the adaptability of these sections to the successful growing of sugar-cane and the manufacture of sugar when the intelligent and progressive practices of the beet sugar producing countries are universally adopted. Both the soil and climate of this section are favorable to the growing of cane, as evidenced by the splendid patches, sometimes in-

creasing to small fields or plantations, found everywhere throughout this belt. These numerous object-lessons demonstrate, beyond cavil, that if a progressive agriculture be adopted, by which the proper preparation of the soil, fertilization and cultivation of the plant, together with rotation, including some leguminous crops, at short intervals, be secured, that these sections can successfully make sugar and syrup in competition with the world.

"The numerous samples of sugar-cane grown in these sections and forwarded to us last season show by analyses to be greatly superior in sugar content to that grown upon the alluvial lands of Louisiana. This increased saccharine content is of vital importance to the manufacturer of sugar, and as soon as demonstrated by one or two local factories, will cause capitalists from every direction to speedily erect central factories throughout the belt for the purchase of cane and the manufacture of sugar."



FIRST CROP OF SUGAR CANE GROWN AMONG STUMPS ON "CUT-OVER" LAND.
This land was in timber only a few months before.



"CUT-OVER" LAND IN CALHOUN COUNTY, FLORIDA,

WHICH PRODUCED SUGAR CANE THE SAME YEAR.

He further stated to a friend in a personal letter: "I was amazed to find the extent to which sugar-cane was grown and the quantity of syrup annually made for the market. I spent several days in the field and weighed quite a number of acres growing in cane, and to my astonishment found the yields were from 16 to 35 tons per acre. I may say further that their canes are unusually rich, * * * and all show a large superiority in sugar content to those grown upon the alluvial lands of South Louisiana."

Comparison of Georgia and Florida sugar-cane with that of Louisiana, Hawaii and Cuba, as given by Prof. R. E. Blouin of the Louisiana Sugar Experiment Station, follows:

	Percentage		
	Solids.	Sucrose.	Glucose.
Louisiana canes.....	10 to 19	7 to 17	1.00 to 2.50
Hawaiian canes.....	17 to 21	15 to 19	.30 to 1.00
Cuban canes.....	17 to 19	15 to 18	.30 to 1.00
Georgia canes.....	18	16	1.00
Florida canes.....	18	16	1.00

Professor Blouin stated the average summary to be as follows:

Louisiana canes.....	12 per cent sugar
Hawaiian canes.....	17 per cent sugar
Cuban canes.....	16 per cent sugar
Georgia canes.....	16 per cent sugar
Florida canes.....	16 per cent sugar

State Chemist of Florida R. E. Rose says this:

"Any soil in Florida that will produce a fair crop of corn will make good sugar-cane; the richer the better. Clay and marl subsoils are preferable, if well drained. Flat pine land, with a clay subsoil, well drained and fertilized, makes fine crops. The plant is peculiarly robust, and easily cared for, subject to few disasters. It will stand degrees of drought or flood fatal to all other crops. No peculiar skill is required to cultivate it, as is the case with beets. After years of personal observation and having consulted large numbers of practical growers, I am justified in saying a total failure of a cane crop has never been known. Anyone who can raise Indian corn can grow sugar-cane. One man can easily attend 20 acres."

The people of North Florida, South Alabama and South Georgia have been growing sugar-cane for years, squeezing out the juice with common horse-power mills, boiling it down and making syrup therefrom. The State chemist has given an estimate of 20 tons per acre, making 30 gallons of syrup per ton, as a fair average for Florida sugar-cane made in this common way, and selling at 30 cents per gallon pre-war price. I have talked with scores of farmers that told me of producing from 10 to 25 barrels of syrup per acre. They estimate the cost of making as about 10 cents per gallon. A Mr. Clark of Calhoun county, Florida, said he made in

1911, 42 barrels of syrup from three acres of cane, selling it for 35 cents per gallon wholesale, a total of \$490, an average of \$163.33 per acre gross, or \$116.66 per acre net. Mr. Baggott of same county stated he made 105 barrels from seven acres of cane, obtaining 3500 gallons of syrup, which he sold for \$1225, at 35 cents per gallon, which would average \$175 per acre gross, or \$125 net; while a Mr. Hance, near Blountstown, informed me he made 27 barrels, or 900 gallons, of syrup from one acre of sugar-cane, selling it at 30 to 35 cents per gallon, or in excess of \$270 per acre gross, or \$180 net.

It will be observed that the yield of the cane grown by the above-named parties ranged from 15 to 30 tons per acre. Leonard Brothers, near Apalachicola River and the Jackson and Calhoun county line, reported a crop of 45 acres in 1916, producing 750 barrels, selling at 35 cents per gallon, or about \$194 per acre gross; while Mr. Samuel Leonard informed me that their crop for 1918 on 50 acres would give them 800 barrels of syrup, which they had sold for 95 cents per gallon, over \$25,000, which would make an average of \$500 per acre gross. One is given this information on a tour through the cane belt of North Florida, South Alabama and South Georgia, until it becomes a matter of wonder that capital long ago had not entered this rich field and aided in the development of the syrup and sugar industry until it might have been today not only sufficient to have supplied the needs of the United States, but for the export demands of the world.

The world's total export of sugar for 1913, before the war, was 9,665,905 tons, while we consumed in the United States in 1914, according to Government reports, 4,396,898 tons.

Dr. Stubbs, Director of the Louisiana Sugar Experiment Station, not only stated that he found the sugar-cane of North Florida and South Georgia to yield from 16 to 35 tons per acre, but also that it made from 225 to 240 pounds of sugar per ton of cane. If the minimum of 225 pounds of sugar per ton be taken, with an average yield of 20 tons of cane to the acre, the production would be 4500 pounds of sugar to the acre. State Chemist Rose of Florida has made a still more conservative estimate of 20 tons of cane per acre, yielding an average of 175 pounds to the ton of cane, or 3500 pounds of sugar per acre. From this it may be determined that the United States could have produced the crop of 1914 for its own use on about 2,500,000 acres of good Florida land, while for the world's export it would have required the sugar that could be produced on about 5,500,000 acres.

There are probably 125,000,000 acres of land in the cane belt of the United States where sugar-cane can be grown with varying degrees of success. About one-third of this area is found in the State of Florida, and the southern part of Alabama and Georgia, which chemists have discovered produces cane of the highest "sugar content." This is also the great syrup-producing region

where was produced in 1918, according to State reports, as follows:

	Acres of cane.	Yield Gals. syrup.	Valued at
Florida	16,318	3,354,874	\$2,681,664
Georgia	67,300	8,750,000	8,487,000
Alabama	81,800	9,519,000	6,993,000
Totals.....	165,418	21,623,874	\$18,161,664

The combined average yield of the three States is 130 gallons per acre, while the average yield of each State is as follow: Alabama, 116 gallons per acre; Georgia, 130 gallons per acre, and Florida, 205 gallons per acre.

Valuing Florida syrup at only 50 cents per gallon, and it is worth nearly twice that now, and charging 10 cents per gallon for making (and where is there another annual crop that can be grown at as low cost and as free from failure), that will pay a State average of over \$100 per acre gross and more than \$80 net.

Where can "cut-over" lands be converted more rapidly into sugar plantations and stock farms? Why are not more people growing cane in Florida if it is so profitable? Simply because Florida has more land than people, and the thrifty farmer and syrup and sugar manufacturer has not discovered and worked this gold mine. Few know that good "cut-over" lands can be purchased from \$15 to \$25 per acre and converted so reasonably into a livestock or sugar plantation.

Twenty-five years ago, when ten dollars' worth of alfalfa was sold from an acre of Kansas land, wise men said: "That is 10 per cent on \$100 per acre, and the land will eventually go to that price." Has not that prophecy long ago been fulfilled as to good alfalfa lands in Kansas?

In Ohio, Indiana, Illinois, Iowa and other places having long, cold winters, and not always an assurance that the annual crop will pay either \$10 or \$40 per acre, have not their lands been selling from \$100 to \$400 per acre?

In comparison with other regions, what will possibly be the ultimate price of these selected lands so peculiarly adapted to the growing of sugar-cane and livestock, in this geographically and climatically circumscribed area of the United States Cane Belt?

In the light of the evidence given and the experiments and demonstrations made again and again for many years by numerous persons, both private and public, as well as the published reports of States and the Federal Government, does it not seem that there should be some wise get-together movement on the part of land-owners, capitalists, State and Government officials, that would lead to the speedy development of this great sugar-cane industry?

Co-operative Marketing Plan in Mississippi Ascribed to Work of County Agent.

Memphis, Tenn., November 29—[Special.]—Mississippi lost a big man in public agricultural work when W. R. Ritch, county farm agent for Yazoo county, resigned recently to become farm manager for a big plantation owned in the alluvial section of Arkansas. County Agent Ritch was one of the oldest county agents in point of service in Mississippi. He was generally credited with starting the co-operative marketing plans of aiding small farmers in getting their farm products to the best markets. When he started the work in Mississippi early in January, 1912, not a carload of hogs, sheep, cattle or other livestock had been shipped from Yazoo county. He induced farmers to join in making big shipments as frequently as possible and such good prices were obtained for surplus animals and farm products that scores of farmers gave up growing cotton exclusively and started raising livestock along with their cotton.

Yazoo county alone will market probably \$1,000,000 worth of livestock through the co-operative system this year. The plan, spreading to all other counties, is working out very successfully not alone in the matter of getting the best prices but in stimulating interest of Mississippi farmers in other things than cotton growing.

County Agent Ritch, in addition to his co-operative market work, has been of big service to farmers of the lower Mississippi Valley in showing them the worth of soy beans and cow peas to build up land that has for years grown nothing but cotton. He was a big man in other agricultural work in Mississippi and, though he has left the State, the results of his efforts will be virtually a monument to his pioneering.

Sweet Potatoes Now Third Largest Money Crop in Mississippi.

Jackson, Miss., December 3—[Special.]—Circumstances have made the growing of sweet potatoes one of the chief industries of South Mississippi. The crop is not confined to the southern part of the State, however, but is grown on a more or less extensive scale in nearly every part of the Commonwealth. It is now Mississippi's third largest money crop.

Experience covering a period of years has proven the adaptability of the South Mississippi country to this crop, and the gradually increasing demand of late years for greater food production has found a ready response on the part of the farmers, according to R. H. Bryson, agent in marketing for the co-operative extension work of the A. and M. College and United States Department of Agriculture.

In 1917 the sweet potato crop had reached an aggregate of 5,525,000 bushels. The following year the production jumped to 8,450,000 bushels, and this year the total crop was 9,400,000 bushels, worth over \$7,000,000.

The South Mississippi farmers, Mr. Bryson said, found themselves with a substantial surplus over their regular demand, which was no encouraging prospect. In some sections of the northern part of the State and in neighboring States there was a scarcity of this much-needed food supply. The problem then became one of distribution. The sweet potato growers presented their problem to the Co-operative Extension Work in Agriculture and Home Economics, with the consequence that last year there was organized in Jackson the Mississippi Sweet Potato Growers' Association. The association began at once the development of the marketing phase and inaugurated an educational campaign on the uses of sweet potatoes.

Mr. Bryson's efforts have been devoted not alone to the creation of a market, but he is conducting a campaign of education among the sweet potato growers themselves as to the proper methods of harvesting, storing and marketing. In a bulletin which he recently issued in collaboration with T. M. Patterson, State agent in marketing, the improved way of handling and disposing of the crop is thoroughly explained.

Enormous crops of sweet potatoes are reported from every section of the alluvial belt of the Lower Mississippi Valley this year. Farmers in many sections have built curing-houses and will hold back much of the crop to get the better prices that are paid in the late winter and spring. Even at present prices the crop value is enormous.

John Black of near Leachville, Ark., had 22 acres of sweet potatoes this year, from which he harvested an average of 300 bushels an acre. On a valuation of \$200 per acre he got more than enough to pay for the land from which he harvested his crop. Smaller tracts of delta soil produced an average of 400 bushels an acre in many communities.

Office Building Planned for Atlanta for Manufacturers' Agents.

Atlanta, Ga., December 4—[Special.]—Under the direction of the industrial promotion committee of the Atlanta Chamber of Commerce, draughtsman's plans are in the course of preparation for modern office building to be constructed here for the exclusive use of manufacturers' agents and traveling men who represent other Atlanta companies. The announcement was made by James L. Logan, chairman of the committee, who said that preliminary plans have already been completed, and that it is certain the building will be erected.

Mr. Logan presented figures showing that about 1500 men travel out of Atlanta for firms that are not located here. These men have been maintaining offices in various buildings, and while some still retain these offices, others have been forced to move when they received notice that their office space had been refted. Unless these men can obtain offices in Atlanta, they will probably move their headquarters to other cities.

Mr. Logan said that the plans now in prospect were to build a modern office building that would house not only these men, but manufacturers' agents as well. Part of the building is to be used for display purposes.

Definite plans regarding construction work will be announced in the near future.

THE IRON AND STEEL SITUATION

Unsettled Conditions in Coal Mining of Great Concern to Steel Industry.

Pittsburgh, Pa., December 8—[Special.]—The steel industry is now closely approaching the end of its coal supplies, and if there is not a general resumption of mining at the union mines the closing of mills will be widespread. Half the industry may be down in another fortnight. Up to date there have been few closings, although there have been enough forerunners to show clearly what must occur if the coal strike does not end. The steel industry will be affected not only by shortage of coal for operating steel-making and steel-finishing departments, but also by shortage of coke for making pig-iron, since the 25 per cent. restriction in making beehive coke, decided upon December 2 by the Fuel Administration, is now in force. The fact that the steel industry faces such a situation at this time, when coal production has been increasing for two or three weeks, shows clearly that it has hitherto been operating chiefly on its stocks.

At the moment the coal strike looks like a much more serious thing to the steel industry than did the iron and steel strike in its time, but that is only the appearance. From the long-range viewpoint of the amount of steel production lost, the iron and steel strike is by far the more important. The coal strike may end tomorrow, or next week, or week after, and when it ends it will all be over. Almost immediately the steel mills will be well supplied with coal. They will not even have to wait, in all cases, until they receive the freshly mined coal, as the resumption of mining will release coal now being carefully conserved by the distributing authorities for the most essential uses. The steel strike, on the other hand, continues to affect production at plants that have become entirely free from the strike, as a strike. Many plants will not have their men in alignment for entirely efficient work for several months.

On December 2 the Fuel Administration decided to restrict the production of beehive coke by 25 per cent. It already had control of by-product coke production quite largely, as nearly all by-product coke is made with shipped coal. It is understood that the beehive regulation is to be made entirely through the railroads, by means of car distribution, and it appears that in the case of the Connellsville region coke cars are not to be furnished Wednesdays and Thursdays, coal cars being supplied instead. Some coke operators had demurred at the idea of limiting their operations, claiming they could not ship coal, but it is recognized that there are no insuperable difficulties.

The scramble for spot lots of furnace coke had been increasing, as many furnaces drawing their supplies from regions affected by the coal strike were short of coke, and when the news came that beehive coke production was to be restricted the bidding sent prices up several dollars a ton, \$10 being paid last Friday, while last June and July the average price was about \$4. Only a limited tonnage could be picked up, and conservative coke operators decried the advance as disturbing the market and encouraging the Fuel Administration to restrict coking operations further. The blast furnaces being already short of coke through the curtailment in by-product coke production, pig-iron production is likely to be curtailed from the average rate obtaining in the latter part of November by more than the 25 per cent, by which beehive coke production is to be cut, and this, in turn, would affect steel mill operations, but it is probable that the steel mills will feel the shortage of coal more than any shortage of pig-iron. In any event the restriction is not likely to be protracted.

The entire Connellsville region has advanced wages for both mine and oven labor by 14 per cent, pursuant to the pronouncement of Dr. Garfield that the coal-mining scale for the central competitive district should be advanced by this percentage. The Connellsville region is strictly non-union, but labor there has been very restive, and it was deemed desirable to make a 14 per cent advance at once, not waiting to receive positive assurance as to what the union scale is to be. The advance, since it applies to the coke oven as well as the mine labor, amounts to nearly 50 cents per ton of coke. The operators, with occasional exceptions, are well fortified to pay the increased wages by reason of their having sold their coke for next year at much higher prices than obtained in contracts for the present half year. A few of these contracts carry a proviso that the price in the contract shall be

increased by any wage advance that occurs. In contract negotiations for next year many operators have been endeavoring to have wage clauses inserted, but in the main without success. Contracts made for the present half year included some flat-price contracts at \$4.25 and at \$4.50 per net ton at ovens, and some sliding-scale contracts at 6 1/4 to 1, based on basic pig-iron at valley furnaces. At the \$25.75 pig-iron price that ruled from July to October, inclusive, the invoice price of coke under such contracts was \$4.12, but with the present pig-iron market of \$33 the invoice price becomes \$5.28. Six weeks or more ago, when contracting for 1920 began, some contracts were closed at the flat price of \$5, some being made shortly afterwards at \$5.50, while recently a little \$6 business was done. With pig-iron advancing as it has been doing in the past few weeks, coke operators wanted to profit by the advance, while furnacemen desired to protect themselves in case of possible declines in pig-iron, and ratio contracts came into favor. Several were made at 5 1/2 to 1, which would mean \$6 for coke with the present pig-iron price, and a few at 5 to 1, which would correspondingly make the coke price \$6.60.

By the higher prices furnacemen have had to pay for coke it has been illustrated that advances in pig-iron prices do not correspondingly increase profits, and there is now a possibility that the Lake Superior ore interests will advance their prices for the 1920 season on account of pig-iron having advanced so much. A month ago their attitude was that they would make no change in ore prices for the new season. There is the interesting possibility for the furnacemen, moreover, that the advanced prices in the pig-iron market, under which he has sold pig-iron through March, and in some cases through June, may not last, whereas an advance in iron ore will apply on some ore that will not be consumed until May or June of 1921.

These considerations throw an interesting sidelight upon the policy set up months ago by the United States Steel Corporation, that finished steel prices should not be allowed to advance above the March 21 schedule agreed upon under Secretary Redfield's price deflation and stabilization plan. There has been the argument that increased costs should bring increased selling prices, but in the iron and steel market the difficulty always is that once prices start advancing it is difficult for them to find a level at which to halt. In pig-iron, for instance, the furnaces, according to what they said, started out to get a dollar or two more because their costs had advanced and they had not been making enough money. A dollar a ton is a large amount in profits, for with a furnace making 100,000 tons a year, a dollar a ton profit would be \$100,000, or 10 per cent on \$1,000,000, which would be a high capitalization for such a furnace. The advance in pig-iron once started, however, has run to about \$8 a ton on an average. In the case of Buffalo and Eastern Pennsylvania, if not other districts, speculators have gotten in, and in the long run speculators usually injure a market when it stands in greatest need of friends, offering their holdings when consumers are not in mood to buy.

In last week's report it was stated that the great issue in the steel market was whether the price stabilization of the Steel Corporation would obtain or the market would get away under the lead of these mills that are anxious to secure as high prices as the law of supply and demand will vouchsafe them. On the surface, the advance in pig-iron would play into the hands of the latter class, but looking deeper one sees the disadvantage of an irregular, perhaps a runaway, market. In the past week buyers of steel products have been tending to exhibit more self-control, there being less disposition on the part of buyers to bid the market up on themselves. A number of small mills that had appeared to be on the side of those seeking advanced prices have made positive declarations that they are going to sell only at March 21 prices. Additional sales made by the Steel Corporation and other producers at the March 21 list have increased the impressiveness of the showing that large tonnages are really to go into consumption without advances. Doubtless the holidays will, as usual, slow down the entire market, and the conservatives may then add to their following.

T. C. Cowan, President, Cowan Oil & Gas Co., Inc., Piedmont, Ala.—Please find enclosed check for \$6.50; place the same to my credit on subscription to the best magazine published.

Birmingham All Ready for Resumption of Great Activity in Case Coal Strike Is Called Off.

Birmingham, Ala., December 8—[Special.]—Within a week activities in the mining, manufacturing, transportation and other circles in the Birmingham district, interrupted by the nation-wide coal miners' strike, can be readjusted. Within a week, when the railroads have started on the distribution of coal, following the calling off of the strike at the Indianapolis conference Tuesday afternoon, there can be a resumption of operations at blast furnaces, at mills and foundries and other places, so that the output in everything can be brought to a high state of efficiency, the same as was being approached when the strike of the mine workers began, November 1.

Preparations were practically started on when the first announcement came from Washington that the executives of the United Mine Workers had accepted a proposal for a termination of the strike, and that it would be officially considered Tuesday afternoon, with prospects of acceptance. It is believed that by the middle of next week the pig-iron production will be on a better pace than at any time this year. Resumptions in other directions are proposed.

It is believed that a week will hardly be necessary in which to get a distribution of a sufficient amount of coal to relieve the intense situation. Railroads will put back the accommodation and other passenger trains that were annulled because of the fuel shortage. Immediately on the resuming of work by mine workers throughout the country a great business spurt will start in, it is believed here.

Manufacturing plants in the Birmingham district have contracts in hand alone which will require steady operation for many months to come. A general evolution is expected to be started within a few days now. A better feeling is noted throughout the entire district.

\$3,750,000 FOR UNITED DRUG PLANT.

Boston Corporation to Build Factory for Drugs, Chemicals, Etc., at St. Louis.

Details have been determined for the plant to be built at St. Louis by the United Drug Co. of Boston. The Harry M. Hope Engineering Co. of Boston advises the MANUFACTURERS RECORD that the buildings will cost \$2,750,000 and the machinery \$1,000,000, with daily capacity 10 carloads, the probable date of completion being June 1, and 1000 operatives to be employed. Stating further facts, the engineering company writes:

"Nine acres of land will be occupied for the plant, and a four-acre site will be developed for welfare and recreation purposes. The principal buildings will include a seven-story-and-basement structure 430 feet long by 80 feet wide. The crude stock building will be seven stories high, with basement, and 160x100 feet, while the finished stock building will be seven stories, with basement, and 200 feet long by 100 feet wide. A one-story-and-basement,

430x40 feet, has been decided for the receiving building, and 81x50 feet for the boiler plant, with electrical substation. Reinforced concrete construction, steel sash, brick walls, steel frame, rolling steel shutter-type doors, electric elevators, conveyors, direct steam radiation heating system, automatic sprinkler equipment, fire-alarm systems, etc., will be installed. The manufacturing departments will include equipment for the production of candy, chemicals, drugs, perfumed creams, powders and other similar articles, besides paper boxes for shipping purposes and the necessary printed materials. The electrical substation will be equipped with transformers for stepping down the voltage of the electricity to be purchased for lighting and power purposes. Hospital, employees' restaurant, co-operative store, etc., will be maintained. General contract for construction has been awarded to the Westlake Construction Co. of St. Louis."

Southern Industries to Get Needed Coal.

Atlanta, Ga., December 3—[Special.]—As a result of the coal shortage and conservation movement, the cotton mills in the area embraced by the Southern regional railroad administration will not shut down, as at first predicted. Liberal concessions have been granted manufacturing concerns, the effective ruling reading:

"Such industries as operated separate night and day shifts of employees two months prior to December 1 will be permitted to continue the operation of the two shifts with a 48-hour per week limit for each of these shifts. This applies not only to cotton mills, but to all lines of manufacture."

Remarkable Industrial Growth at Chattanooga.

Chattanooga, Tenn., December 2—[Special.]—During the first 11 months of the current year local industries have been increased by the addition of \$9,863,878 in new capital invested, according to figures compiled by a development bureau here. Capital invested includes, in addition to new industries, enlargements completed, determined upon and under construction at the present plants.

The enormous activity in building is shown in the amount of capital invested in additions by manufacturers alone during the year. Enlargements determined upon, under construction and completed represent an investment of \$3,820,000. Thirty-nine new industries have been added. Twenty-six are manufacturing plants. New industries completed since the first of the year represent \$1,881,000. New industries under construction will cost \$622,878. Industries, work upon which will begin immediately, represent an additional investment of \$3,500,000. Never before in the history of Chattanooga has this remarkable growth been approached.

There has been an increase of nearly 2000 per cent in bank deposits in Chattanooga banks in the last 25 years. Deposits have increased 150 per cent in the last eight years. Bank clearings show a steady increase.



NEW PLANT OF UNITED DRUG CO., ST. LOUIS, MO., TO COST \$3,750,000.

Community Development Reaches High Plane in Cotton Mill Groups at LaGrange, Ga.

The care and attention given by the cotton mill corporations of LaGrange, Ga., to working conditions in the mills, and in providing wholesome home and living facilities for their workers gives this young-old city of the South a conspicuous position in mill welfare work. LaGrange, by the way, is one of the old cities of the South, incorporated in 1828. Its name was taken from the country seat of General LaFayette, and, like most of the communities of the South, was highly prosperous before the Civil War, but the four years of that conflict almost prostrated its people and property. Now it has come back, and today it is a busy, lively and prosperous community.

The first cotton mill, the LaGrange Mills, was constructed about 30 years ago, and now LaGrange has nine modern cotton manufacturing establishments, including the Dunson, International, Dixie and the Callaway group. One of the governing conditions in the building of these mills was that the employees should have the best opportunities to work and to live happily and prosperously, and owners of the mills have succeeded in giving the work-

The Callaway group of mills, which comprise six or seven organizations, were the first in the South to start the profit-sharing and bonus system, and this group has taken special interest in developing a fully satisfied class of workers and building into



BENJAMIN FRANKLIN INN FOR SINGLE MEN EMPLOYEES.

practical operation the mutuality of interest of employer and employees. Attached to this group of mills for the use of the mill workers are hospital facilities, Y. M. C. A. Community Building, a number of churches of different faiths to meet the needs of the people, two inns (Benjamin Franklin Inn for men and Martha Washington Inn for women) greenhouses, swimming pool, vege-



Y. M. C. A. BUILDING FOR EMPLOYEES AND THEIR FAMILIES.

ers every possible facility that makes for better and more contented labor.

The fact is that probably nowhere in the South is mill welfare work better exemplified or more closely and practically applied than in LaGrange. Co-operation to the fullest extent exists between the mill owners and the mill operatives. A system of bonus and profit-sharing plans is in practice in most of the mills and many of the workers possess stock in the companies. Schools and churches are provided, and every opportunity is given for church and educational work. The children's welfare is especially looked after, and not only are kindergarten schools provided, but the children are given pieces of ground for garden work and are taught the up-to-date method of growing vegetables, flowers, etc., and for the more advanced boys and girls necessary grammar schools and high schools are provided.



MARTHA WASHINGTON INN FOR WOMEN EMPLOYEES.



EMPLOYEES' GARDEN IN CALLOWAY GROUP OF MILLS AT LA GRANGE, GA.

table and flower gardens and other facilities needed for a well-rounded community life.

The accompanying illustrations show the vegetable garden for employees, Martha Washington and Benjamin Franklin Inns, Y. M. C. A. Community Building and one of the greenhouses. The



COMMUNITY GREENHOUSE AT LA GRANGE.

mill workers are also supplied with every modern facility in the mills, making for preservation of health, economy of operation and all-around good working conditions. The mills are well lighted, well ventilated and clean. Altogether there exists in LaGrange a close working interest among the mill workers, that probably is not surpassed, if equalled, by any industrial district of its size in the United States.

Cotton Gamblers and Cotton Producers.

Austin, Tex., November 28.

Editor Manufacturers Record:

Your issue of November 13 had two articles in it, both from Dallas, Tex., in which the writers took you severely to task. One for your having something to say about "the gamblers on the exchanges exploiting the farmers of the South," and I notice this writer seeks to eliminate all responsibility of the exchanges for the low prices of 1914, and makes it appear that they closed and the price went down after the close. All friends of exchange gambling which I have heard express themselves do the same thing. The others seem all up in the air, and talk like they own the South, and the cotton business, and are mad because you are trying to free the producers from the clutches of the gamblers and some cold-blooded dealers by encouraging them to organize for their protection against gambling.

I do not think you need any assistance in answering the argument of either, and it is not my intention to try to defend your just and meritorious editorials. But being a farmer and interested in the price of cotton in 1914, having a crop to sell, I paid close attention to the conditions affecting the price.

One of these men says: "There was no speculating or gambling, if you please, with the exchanges closed in the autumn of 1914, and cotton went to six cents." This gentleman certainly knows that the exchanges stayed open and the rankest of wild gambling went on until the price went to six cents, and then they closed their doors. No, there was no gambling in futures while they were closed, of course not, but the price steadied around eight cents, and they opened. Why did they close? Simply because those caught on the bull side of the board were being broke or made bankrupt, and because if they had remained open, the price would have gone to three cents or less. As it was, many good business men became disgusted at the exchanges as a dependable system of making the price of cotton. If they had remained open and the price had gone on down, there was serious danger of Congress abolishing them. So they closed to save some of their patrons from bankruptcy, and to prevent public condemnation of themselves as a dependable system of making the price of cotton.

This same man says: "The exchanges are vitally necessary to the cotton market, and of which the planters are the chief beneficiaries." They are vital to the dealers, because by their methods they make themselves so. Dealing on them makes them necessary to the dealers as a pledge, because of the fact that in the past the producers were in debt; (because of the low prices made by the exchanges) because they were unorganized; because they had to

sell their cotton as fast as gathered. We have future dealing, speculating or gambling in cotton prices. Eliminate the causes of it and we will have no use for it. Organization prevents future dealing in fruits of the West. Organization of the nail manufacturers prevents future dealing in nails. Organization among the producers of all manufactured products, that are alike, prevents future dealing in them. In other words, there is no future dealing in products of which the producers control the supply offered to the consumers. It appears to me all future dealers must realize this to be a fact, and that is why they oppose organization of the cotton producers. To say that enough cotton producers cannot be organized to control the price of cotton, in accordance with the law of supply and demand, is equal to saying that those who do not want them organized can and will prevent it, for certainly there is no other reason.

There is just one remark by the other gentleman to which I desire to call your attention, and that is this: "We say to you frankly that there is not going to be any permanent 40 or 50-cent cotton, nor is there going to be any direct marketing of the product from the producer to the spinner." This sounds very much like the gentleman considers he owns the South. I cannot believe all the cotton buyers in the Dallas Cotton Exchange building feel that way. If they do, certainly there are those who would not dare be so bold in their talk. We talk about anarchy, Bolshevism and I. W. W. needing to be crushed in the United States. I have failed to see where any of them have declared themselves as boldly against people having some say as to what they will do with their property, or how they shall handle it, as this. Does their wealth or easy way of making money cover up their words and prevent them from being anarchists, Bolsheviks or I. W. W.?

I do not know that the producers will ever sell direct to the spinners, nor do I know of many who have that idea; but it is not impossible to eliminate a lot of rubbish between the producer and spinner and make the road much shorter. The reason I say this is because it is already being successfully done. People did not have horseless carriages or freight wagons until a few years ago, neither did they fly, but they do now.

You are doing good, and lots of good, but you do not have to be told, you can hear the "howling," which is proof positive.

W. B. YEARY, Cotton Specialist,

Texas Department of Agriculture.

Farmers Should Hold on to Their Cotton Is the Advice of Ex-Senator McLaurin.

President J. S. Wannamaker of the American Cotton Association sends to the MANUFACTURERS RECORD the following open letter written from New York under date of November 20 by ex-Senator John L. McLaurin of Bennettsville, S. C.:

MR. J. S. WANNAMAKER.

Saint Matthews, S. C.

New York, N. Y.

Dear Sir—In compliance with your request I have spent this week in New York studying the cotton situation, and give you herein the results of my investigations.

I find that about 1,000,000 bales of cotton has been sold through New York and New Orleans Exchanges for English account. Most of this cotton has already been sold to the Continent by English purchasers at a profit of 25 cents per pound. There is also about 100,000 bales of high-grade cotton sold from the South and financed by the Savannah and New Orleans banks. This cotton is on consignment and is held in warehouses abroad. Good cotton has become so scarce that every effort is being made, by pressure on the banks, to force liquidation of this Southern account.

My information leads me to believe that there is, at least, 1,000,000 bales of cotton taken out of American stock for European account more than there was at this time last year. Most of this cotton is either stored in Europe or en route, so that all of it is ready to sell when the foreigners are able to pay for it. One million bales has been sold short as a hedge on this European cotton in New York and New Orleans. The question arises, Why did they sell these hedges here instead of in Liverpool? It is because of the financial arrangements connected with the rules and the classification of grades in the exchanges. When the market goes down in New York those who have bought cotton here have to remit each day to the credit of these foreign sellers the amount of the decline. By going short in the New York Exchange and depressing the market with the weight of the sales

they force America to carry the actual cotton it has on the other side, which has already been sold to Germany at a profit of 25 cents per pound.

Here is what I gathered from conversation with many brokers and scraps of information pieced together. One combination of capitalists controls far more December purchasers than there is stock in New York, and they have ample means to pay for the entire stock should it be tendered. They hold December and when they sell any December they exact a March from the purchaser to replace the December, fixing the difference to suit themselves. There is another combination, consisting of the original December pool (and others with them), who control the January option, and if they get through with December without having to take any cotton it is easy to see that will happen in January with Government certificated spot cotton selling at from five to six cents per pound over what December contracts are now selling. The New York stock is slowly melting away because the price here is so much below the Southern markets. I understand that the certificated stock in New York is only about 12,000 bales. What is that against this 1,000,000 bales sold short for European account alone? English buyers are extending their near months into the far months and putting up margin as a temporary relief until they can dispose of the cotton to Germany at a big profit. The day of reckoning will come when they deliver the spots to the Continent and go to cover the futures here. There is a natural corner in every month for the balance of this season and it will grow worse as each option expires. It is no longer a question of high-grade cotton; I think it would be difficult to get up a million bales of high-grade cotton in the South now.

The recent depression in the market came largely from the distortion of Federal Reserve Bank Circular No. 91, and which has been set straight by Mr. Harding's letter to Senator Owens. The shipments to Europe have been practically discontinued, not from lack of anticipated profits, but because the Southern banks were denied the financial facilities to carry that cotton.

In view of the condition of the bank reserve there are certain financiers in New York who were interested in breaking the cotton market so as to get back Southern loans to protect their other interests which were over-extended. The banks of New York are overloaded with the best of American securities, and have loaned too much of their capital to Europe. They do not care to help the South carry cotton because they have got themselves in a place where they are compelled to carry other things or incur loss. They are telling the banks of the South that they must take care of their own cotton, and are saying to Europe, we cannot loan you any more money. The bank reserves clearly indicate why.

The farmers of the South have sold enough cotton to pay the debts incurred in making the crop. There is no big expense for the next four months, when we have to pitch another crop. If every man will quietly hold on to his cotton until March when a portion of the million bales must be covered, in addition to the cotton which domestic mills are now purchasing through the exchanges, we shall see another record price made.

Respectfully,

(Signed) JOHN L. MC LAURIN.

Urge That Cotton Be Held and Insured, Then Marketed Slowly.

Glenmore Farm,
Charles B. Metcalfe & Son.
San Angelo, Tex., November 21.

Editor Manufacturers Record:

Please find enclosed copy address on cotton. It is signed by a number of prominent men who understand that a profitable price to the growers and owners of cotton means continued and steady production, profit to the banks and general prosperity. Note how the future gamblers have been able to stampede future quotations, although they have not a pound of cotton and are offering March contracts at 32 cents. I approve greatly your recent editorial and the remarks of your Dallas (Tex.) correspondent about the Dallas Cotton Exchange nest of gamblers. CHARLES B. METCALFE.

Following is the address to the people which Mr. Metcalfe refers to in his letter:

To the Bankers.

You said reduce the acreage; your advice and the abandonment

of much planted land, lack of labor to plant, cultivate and harvest, rains rotting grown bolls and lint in the fields, boll-weevils, boll-worms, leaf worms, root rot, drouth, floods and frost, combined, will limit production to less than a 10,000,000-bale famine crop.

The world is bare of cotton. It would consume 15,000,000 bales profitably after paying 50 cents per pound for it.

When cotton producers got \$25 per bale, that was all they could deposit. Now, with your partial support last year and this, the farmers who have held their cotton can deposit eight times that amount per bale of foreign money with you. Your profits are limited only by volume of deposits. True, farmers are paying their notes, but with expansion of business through use of abundant capital you can always find borrowers. Your wealth has been created from labor and lands of the farmers. They have confidence in our banks, and will act on your advice; therefore you are to some extent morally responsible in this instance for their financial success. So we emphatically, earnestly and urgently request that all of you advise the farmers to hold their cotton, shelter, insure and market slowly. The immediate and steady result will be that the growers will receive a price somewhat nearer cost of production.

There is not a chance for loss of a cent, but certainly of incalculable profits to you, and through general prosperity of the farmers, which adds to the possibility of a crop for next year, whose profits you will share.

We hope for decisive action by you to utilize your influence and financial power for the benefit of all.

To the Merchants.

This cotton has cost the producers more than 44 cents per pound. The farmers are your customers and friends. The banks will carry you 90 days longer, with profit to themselves, to you and the farmers. Help hold, shelter and market slowly.

To the Farmers.

During the year 1917 the Texas Department of Agriculture advised you to hold your cotton and market slowly, and you would get 30 cents for it. Those of you who followed that advice realized 30 cents a pound and over for cotton which would have sold for 20 cents or less without that counsel and your action on it.

Last year it said 35 cents, with the same results. We boldly advise the only thing necessary to get 45 cents a pound and up for all good cotton is for you to hold, shelter and market slowly, as the department has again advised. If you owe money, consult your banker. Let him know that your cotton is sheltered, insured and subject to his order. Not one banker in a thousand will fail to carry you cheerfully. If your banker is the exception and demands his money, wire the Commissioner of Agriculture at Austin for the name of a bank which will furnish you credit on your cotton.

To those farmers who are not in debt we appeal not to dump your cotton to the gamblers' prices and break the market for those who hold. If prices begin to fall, quit selling. Let the world see that we will stand together to obtain a fair price, and the victory is won.

Respectfully signed, your fellow-citizens,

(Signed) CHAS. B. METCALFE, Cotton Grower, San Angelo, Tex.
J. W. JOHNSON, Vice-President Central National Bank, San Angelo, Tex.
J. G. MURPHY, Editor San Angelo Standard, San Angelo, Tex.
C. S. MILLER, President Bailinger State Bank & Trust Company.
K. M. VAN ZANDT, President Fort Worth National Bank.
PORTER A. WHALEY, Manager West Texas Chamber of Commerce.
G. H. ALFORD, Editor Progressive Farmer, Dallas, Tex.
D. E. LYDAY, President Farmers' Union.
W. B. YEARY, Cotton Specialist, Department of Agriculture.

In connection with my signature to the foregoing, I wish to give credit to the Farmers' Union, to the Warehouse and Marketing Department, to the State Bankers' Association, to the Retail Merchants' Association and others for their assistance and support in the cotton campaigns of 1917-18.

(Signed) FRED W. DAVIS, Commissioner of Agriculture

I have signed the foregoing statement because I heartily endorse

any movement having a tendency to bring about increased returns to the producers of the South. I do not assume to have a personal knowledge, nor am I in a position to determine personally the cost of production. Therefore, I do not sign this statement with regard to the facts stated as to the cost of production, nor am I in a position to assure the public that action upon the part of the producers, as advised by the Department of Agriculture or others, was the direct cause of the realization of increased prices during the years of 1917-1918, although I heartily commend the Department of Agriculture for the advice given, nor can I give assurance as to the action of the banks with regard to carrying accounts.

(Signed) W. P. HOBBY, Governor.

We have advocated the above plan practically, persistently through the columns of Farm and Ranch and shall continue to do so.

(Signed) F. P. HOLLAND, Publisher Farm and Ranch.

I think there should be a gradual marketing of cotton; that it should be well housed and preserved pending sale, and that all financial institutions, mercantile and banking, should adopt the most liberal policy possible in aid of a wise and gradual marketing plan.

(Signed) W. F. RAMSEY, Federal Reserve Bank, Dallas, Tex.

Improved Agricultural Conditions Can Be Secured by Co-operation With Agencies Already at Work.

UNITED STATES RAILROAD ADMINISTRATION,
DIRECTOR GENERAL OF RAILROADS,
WASHINGTON

DIVISION OF TRAFFIC,
Edward Chambers, Director.

J. L. EDWARDS,
Manager, Agricultural Section.

November 25.

Editor Manufacturers Record:

All your readers who are concerned in the "H. C. L." should take notice of Mr. L. B. Langworthy's timely article on "Decreasing Farm Population" in your issue of November 20. As he shows, the movement of people from the farms into the cities has gone on at a rapid rate for many years, and it is still going on—witness the present overcrowding of many cities in all sections. He shows clearly the reasons and necessity for doing something to check this unhealthy and dangerous decrease in rural population compared to urban population. I wish I could emphasize the great importance of this as I have seen and observed it in connection with the agricultural work of the United States Railroad Administration covering the entire country.

He says, however, that "we are making no effort to arrest this shift of population." I do not think this is a correct statement at all. A great deal more ought to be done than is being done, but, as a matter of fact, there is a very considerable amount of intelligent and constructive work actively going on, to aid in making farming a business sufficiently attractive and profitable to keep the farmer, his boys and the rest of the family from picking up and moving to town.

I think some of the more progressive railroads were the first to send agricultural and livestock experts out in the country and work with the farmers for improved agricultural conditions.

About 12 years ago, under the direction of the late Dr. Seaman Knapp, the United States Department of Agriculture established the system of "county agents," beginning, I think, in Louisiana and Mississippi. These men had comparatively small territory to cover, so they could teach improved methods by actual demonstration on the farms.

Now these county agents cover the United States. The Federal Department of Agriculture and the State Agricultural Colleges co-ordinate their extension and demonstration work very thoroughly. In almost every agricultural county in the United States there is a "county agricultural agent," representing both the United States Department and the State Agricultural College. He is one of the great institutions in the nation today.

In his work he is backed up by the farming experts of his State Agricultural College, and, if necessary, by experts from the U. S. Department of Agriculture. He deals with the farmers through personal contact, by personal demonstrations and by practical help. In many counties the value of his work is so well recognized that several assistants are provided to help in the demonstration work, club work with boys and girls, in home economics and other fields of usefulness.

I have met a great many of the men and women engaged in this

sort of work, and they are zealous and efficient to a marked degree. They are taking the best methods of farming that have been worked out scientifically, and have proven their worth in actual practice, right to the farmer, showing him and helping him from week to week and season to season.

Congress has been fairly liberal in its appropriations, which are increased annually, for both agricultural college work and extension work. Under the laws the State Agricultural Colleges are linked into the organization, and they have the immediate direction in each State of the extension and demonstration work.

Nearly all the larger railroads have their own agricultural organizations working in harmony with the county agents' organization. Some of the most substantial results apparent are due in large part to the assistance which the railroad agricultural men have given. Under Federal control special recognition has been given this part of the railroads' service, and we feel much has been accomplished by the representatives of the "Agricultural Section," especially toward growing more and better livestock, aiding in marketing problems and using ground limestone.

Many of the larger corporations, such as the manufacturers of farm implements, fertilizers, etc., are also doing notable work, especially the International Harvester Co.

A number of enterprising cities (for instance, Memphis, Spokane, Denver, El Paso and Moultrie, Ga.) have organized, through their Chambers of Commerce, extensive agricultural improvement work in their respective territories.

All of these agencies are working harmoniously with each other and are seeking to make farming more profitable to the farmer, to make farm life more attractive, to increase production per acre, etc., etc., and in this way to keep the young men on the farms and to maintain and increase production.

The railroads, with occasional help of land companies and some enterprising communities, have also been active, both under private control and under the Railroad Administration, in seeking to settle up arable lands not in cultivation, in order to bring about the full development of the natural resources along their lines. If I may be permitted to say so, I think that a great deal more attention should be given by the State and communities themselves toward advertising their advantages, and not leave it, as most of them have done in the past, to the railroads and land companies.

Among other things which are being done for the improvement of farm conditions are the building of good roads and the organization of farm loan banks. Both of these are highly important factors.

Summing the matter up, instead of "nothing being done to arrest the shift of population from the country to the city," here is an immense amount of constructive work now going on over the entire country to put farming on a basis that will make it attractive. It is being done quietly, effectively, without the blowing of trumpets, and probably is not sufficiently recognized by the public generally.

Wherever there is a reasonable return to the farmer on his investment and his work, and the conditions of rural life are satisfactory, I do not believe there will be much occasion to worry about the production of foodstuffs and other necessary crops.

Unquestionably, the most effective way to save us from the direful future which Mr. Langworthy predicts is to support the good work now being done, help to increase it, and expand it in every way possible.

A great advance in the business of farming is proceeding under our noses. The more it can be hastened the better.

J. L. EDWARDS,
Manager Agricultural Section.

Improved Conditions in Eastern Kentucky Field.

Whitesburg, Ky., December 6—[Special]—Altogether encouraging conditions prevail throughout the Elkhorn and Hazard coal fields of Eastern Kentucky, and nearly all mines have shown record-breaking productions for the past week or ten days. The car situation is improved; in fact, railroads, especially the L. & N., are bringing in cars by the thousands. Their delivery has been prompt and efficient. The best of feeling exists between the operators and miners since the strike which retarded the production of both fields to a marked extent. Miners were ready and returned to work immediately following the Indianapolis decision. Thereafter they gave no trouble, and are today showing a spirit of satisfaction, coupled with optimism—mining every available ton in order to relieve the serious fuel famine that threatens the country.

Pipe Line and Transportation Facilities Give Promise of Much Improvement in Central West Texas.

Austin, Tex., November 28—[Special.]—Many dry holes have been the result of drilling for oil in wildcat territory during the last few weeks. Gradually the testing of various localities of the State is being accomplished and within the next several months the producing area will be probably well defined. Some of the wildcat wells have cost enormous sums of money, due largely to their remoteness from railroad and the heavy cost of transportation. In other instances the formations penetrated have been found exceedingly difficult to penetrate. According to information received here the first of the wells drilled by E. H. R. Green of New York, son of the late Mrs. Hettie Green, upon a large lease acreage that he owns about 50 miles north of Del Rio, has been temporarily abandoned after approximately \$100,000 was spent in drilling work. It is stated that drilling of this well will not be resumed until next spring. Many millions of dollars have been invested by persons of small means in stocks of companies that are drilling wildcat wells. It is about the biggest gamble that one may well imagine. The State Railroad Commission, in an effort to lend assistance to uninformed investors of this character, offers to make an investigation and report upon the financial standing and prospects of any oil company that is operating in Texas, when requested to do so by a stockholder. The fee charged for this service is 75 cents.

It is shown by a compilation of reports made to the Railroad Commission by five of the larger common carrier pipe line companies operating in Texas, that for the month of October the total number of barrels of crude petroleum gathered by them was 5,886,337.09; number of barrels owned and held by pipe line companies, 8,284,337.90; number of barrels held for others, 2,927,195.35; unfilled storage capacity, 6,343,957.85 barrels; total storage capacity, 17,445,491.10 barrels.

Comment on the reports was made by the oil and gas department of the Railroad Commission, as follows:

"In giving publicity to the foregoing statement, attention is called to the fact that the overwhelming proportion of the oil transported in this State by the pipe line companies is the property of the pipe line companies or their subsidiary producing companies. Under the item of 'barrels held for others,' indicated above, a very small proportion, as is shown by the more detailed statement on file in our office, is the property of independent producers; the subsidiary or affiliate companies of the pipe lines operating under different names being treated as oil held for others. It is significant that although the pipe lines are common carriers and have filed their tariffs, and although it has cost the Federal and the State Governments great effort to impress upon pipe line companies of common carrier character, very few producers avail themselves of their privilege of reaching an independent market by using the pipe lines of this State."

"The Railroad Commission of Texas is doing all in its power to see that the independent shipper may use these common carriers on fair terms and without discrimination, but so far few have availed themselves of their privileges."

At this time the daily pipe line runs from the Burkburnett district, including the Northwest extension pool, are approximately 92,000 barrels; which is an increase of about 8000 barrels in 10 days. In all of the shallow fields the total pipe line runs are now close to 108,000 barrels a day. Everything points to a big improvement in transportation conditions by the beginning of the coming year. It will not be surprising if the pipe line runs of the North Texas fields do not amount to 250,000 barrels a day by January 1. Large additions to the runs will be made about December 1, about which date the Sinclair Gulf Corporation is due to commence taking oil through its pipe line. The Gulf Pipe Line Company will have its line finished to the Burkburnett field about that date. It is stated that the wells of the shallow sand fields are decreasing very slightly from their initial production.

Although the discovery well of the Kemp-Munger-Allen syndicate, situated about 15 miles from Burkburnett, is flowing by heads with a total output of only about 800 barrels a day, practical oil operators regard it as marking the beginning of a new field that may within the next few months become highly productive. Many new derricks are being erected upon adjacent leases and in a short time the holes will be down to the sand from which the 500-barrel flow is obtained. Already a new town

has been laid out near the discovery well and if a big field is developed there it will have a population of several thousand people within the next few months, it is expected.

The market phase of the oil industry is interesting the producers very much just now. The recent advance of light crude in the Ranger field to \$2.50 a barrel was followed by an advance to \$2.25 per barrel in the Burkburnett field, where a few weeks ago the price had been cut to \$2 and lower on account of congested conditions and low-price offerings on the part of small independent producers. The prediction is now freely made that the price of light Texas crude will go to \$3 a barrel within the next few months even should the production of these fields be enormously increased. It is pointed out that the great reduction of crude stocks in the world will bring about an increase of the price.

Roughly speaking, there are at this time 12 producing fields in Central West Texas, or Central North Texas, as the territory is sometimes designated. These fields are known to the industry as Electra, with a daily production of about 10,000 barrels; Burkburnett, 92,000 barrels; Iowa Park, 1000 barrels; Petrolia, 620 barrels; Holliday, 90 barrels; Stephens county, 42,000 barrels; Ranger-Eastland, 64,200 barrels; Desdemona-Comanche, 38,120 barrels; Strawn, 220 barrels; Moran, 160 barrels; Brown county, 380 barrels; Coleman county, 120 barrels. In adjoining territory to the several counties in which these fields are situated there is some small production with prospects that good new fields may be developed any time.

Of the several oil pools that have been discovered, none has been more uniformly productive and lasting than Pleasant Grove, in Eastland county, which is classed as being in the Ranger field. In the early stages of development of the Ranger territory a number of Ohio and Pennsylvania investors were fortunate enough to get hold of several large and choice leases close to Pleasant Grove. Root, Hupp & Duff were among the first to begin operating there and they brought in their eleventh producing well a few days ago.

It is authoritatively announced that the White Oil Corporation of New York and Houston has awarded the contract to the J. G. White Engineering Corporation for the construction of an oil pipe line from Ranger to Texas City, about 300 miles. The White Oil Corporation recently acquired a controlling interest in the Crown Oil & Refining Co. of Houston, which owns choice leases and considerable production in the light and heavy crude petroleum fields of Texas. At Texas City extensive export terminals will be built.

According to Homer Peebles, who recently discovered a new shallow sand at a depth of only 260 feet near Sipe Springs, the production at that depth is of paying quantity. He said:

"We were spudding in with an 18-inch bit with a standard rig for a deep test, having all the material on the ground for a deep well. At a depth of 181 feet we reached an oil sand which gave indications of making around three barrels per day. Going deeper we came to another sand, a hard, splendid oil sand at 260 feet. We are in this 14 feet, and the well is bail ing about 75 barrels. Considerable fresh water is coming into the hole from above."

"We have now ordered two star rigs, and will drill other wells to this sand and develop it. In the meantime we will continue to bail the present well until the other wells are completed, when we will drill through the sand to determine the thickness and to explore for other sands at a greater depth. This announcement is official, and is made only after we have carefully investigated our find."

The Webb-Zapata Oil Co., which owns a number of producing wells in the shallow field of Zapata county, is preparing to drill a deep test well upon its lease there. Shallow oil is obtained at a depth of 160 to 200 feet and the average production is 8 to 10 barrels of high-grade petroleum a day.

To Manufacture Ready-Cut Houses.

Plans are being completed at Wilmington, N. C., for the establishment of a factory by the Aladdin Company of Bay City, Mich., nationally known as a manufacturer of ready-cut houses. North Carolina pine timber will be the principal product used for manufacturing, and the plant will have an initial daily capacity of six complete houses. A. R. Breese is negotiating to locate the enterprise, and will be its general manager.

Have They Forgotten That the Sun Rises in the East?

SOUTHERN WAR MOTHER ASKS IF ADMINISTRATION SENATORS HAVE WANDERED SO LONG IN DUSKY TWILIGHT THAT THEY CANNOT SEE THE SUNLIGHT OF FACTS THAT REVEALS THE INIQUITY OF LEAGUE OF NATIONS COVENANT.

By IDA M. H. STARR, Hope House, Easton, Md.

Thank God, I live in the country. There is no hour of my day but I am up against indisputable facts. I live in the real country, not the suburban sort that camouflages nature, but in a place where, if my fuel supply runs short, I must go out in the woods, mark trees, have them chopped down, hauled to the woodshed, sawed, split and finally carted to the cellar. I know just how much dynamic force I must expend to get this fuel ready for the furnace and I know the sound of every foot that shuffles behind the cart.

The sunrise is not a poetic fancy to me, not a word to rhyme with enterprise, or authorize, or otherwise—no, it is one of my indisputable facts, for I watch it every morning as the days speed along. At night, my perspective across the Bay is blurred, but with the morning my vision is clarified, the clear light of the early sunrise gives me the lines of the far country in their true outline.

I know to a second when to expect the first faint tints of dawn, to a second when to await the first glory of daybreak. Facts—facts from dawn until noon, for when the shadows on our veranda are vertical, I know it is mid day; and when the sun reaches just a certain height over against the Bay, I know that the gardeners must gather up their tools, for night is near. Facts, always facts. Not delusions, but great, primal facts hit me in the face, however I may wish to escape them. They are eternally before me and they form the basis of my thought. They are the cosmic origin from which all of my life radiates. All fiction, all art, all poetry, all friendships, all philosophy, all the problems of my life, and all world problems must line up with these indisputable facts which are forming my moral code.

In the long, silent twilight, my work finished, I sit and watch the glow of the fire, see the logs which I have seen fall in the woods burn before me, and then with a mind that has been saturated with realities all the day long, a mind stripped of distortions and abortions of truth, a mind clarified by the eternal facts of nature, with this equipment, I read the events of the times and form my opinions.

I sent four sons to the "Great War." My entire soul was aflame to rid the world of the barbarous Hun. We didn't think then, nor did we talk about "making the world safe for democracy." All of that talk came later, not from the boys, but from the men who were safely at home. The boys who went over knew that their country, their homes were in danger and they wanted to lick the Hun to a finish. It was all a perfectly simple, direct thought that inspired our boys, and with the simplicity of the sunrise in their souls, they went to France.

A year ago today my son was in the Argonne. You men, making laws up there in Washington, do not know what that meant to mothers. I know what it meant to wait week after week for delayed news after the armistice was signed. I was not alone in my suspense. Millions of mothers felt and suffered as I did. Millions made even greater sacrifice than I, before whom I bow my head in reverence. We gave of our utmost. We gave for OUR COUNTRY. Remember, there was no talk at that time about "making the world safe for democracy." We gave our sons for OUR COUNTRY, for a country governed by and administered for AMERICANS.

"The tumult and the shouting dies;
The captains and the kings depart:
Still stands thine ancient sacrifice,
An humble and a contrite heart.
Lord God of Hosts, be with us yet,
Lest we forget, lest we forget."

The treaty of peace and the Covenant of the League of Nations was brought to us from the peace table in Paris.

Men have already written volumes on the questions which these documents have developed. These documents, I believe before God, are of more vital interest to mothers than to any other liv-

ing beings, for the Covenant of the League of Nations strikes directly at the heart of a home.

I shall not assert that the volumes that have been written on this great subject have been written with a deliberate intent to beguile the minds of women, but it looks suspicious. Men may need a multitude of words and high-sounding rhetoric to impress the truth upon them, but women do not need these things. We reach conclusions by different channels than those employed by men. God somehow gave us a gift—call it what you will—intuition, vision, or any other word you like, the word does not matter—a fact remains. Women form their judgments by quick, sure methods; by sane methods. We see things suddenly in the right light and the centuries have hallowed our wisdom, for did not "Mary know all these things?" Was she not the only one in her day who saw with the perspective of the sunrise?

Since the days of Mary, men have thought to beguile our brains by the multitude of their words and the brilliancy of their rhetoric, and never in all history has this tendency been more to the fore than at this time, when the League of Nations would be fastened upon us. But words, words, be they by the million, cannot deceive mothers. We are up early in the morning, and while you men are asleep the sunrise is sweeping our souls clean.

The patriotism which rings now from the White House and from the Administration Senators does not line up true with my sunrise or with anybody's sunrise who has ever seen a real one, and that is the reason we mothers of America hold our breath while you men up there in Washington are juggling with the fate of OUR SONS and OUR COUNTRY.

Do you think to deceive us when you say that the League of Nations as it came from Paris is the great step forward for OUR COUNTRY? The panacea against all future wars? You hide the truth beneath a multitude of words, but you cannot take from women their understanding of plain facts. We mothers meet facts always. Whether we live in the city or in the country, we know certain things to be right, and no amount of camouflage can separate us from this knowledge. We know that international questions are but an enlargement of domestic questions. We know that the questions that confront us in the League of Nations are fundamentally simple. We know that a man's first duty is to his home. This is a great primal fact. It admits of no argument. Our Government stands in the same relation to the American people that a man stands in relation to his children.

We know that the same laws that govern the sunrise govern families and govern nations. We mothers know these things and our understanding of them is simple, direct and final.

Tell me what would happen if by some unforeseen swing of the pendulum the mayor of your town should decide that your home would be managed much better by a Jap or a Chinaman or a Turk or a Hindu or an Arab, or perhaps just by the neighbor across the way, than by your own wife or whatever chances to run your home. Look at this thing in a sane manner. Tell me, what would happen to the mayor of your town if he should issue such a mandate, what would the mothers of your homes say? Needless to repeat. Individuals, to develop, must master their own destinies. Neither individuals nor nations that profess to sanity would be willing to live under other conditions.

Can you conceive it possible for your home to be made into a Turkish harem, you men, you women of America? Your sacred home ruled by the caprices of the women of the East; your sacred walls filled with the hideous quarrels and jealousies of unknown peoples?

How many of us know the text of Article X, the article which, as the President asserted, if modified, would take the heart out of the covenant? Here is the text; everyone should memorize it; it should be on the tongue of every school boy as one of the great "shall nots" of our history. It is over these seven and a half short lines that the storm has broken, and to the lasting honor of those

who have stood out against them do we mothers render our gratitude. The article reads:

"The members of the League undertake to respect and preserve as against aggression the territorial integrity and existing political independence of all Members of the League. In case of any such aggression, or in case of any threats or danger of such aggressions, the Council shall advise upon the means by which this obligation shall be fulfilled."

What is this council? Is it our Congress? Is it our Senate? Not at all. Neither our Congress nor our Senate have any voice in the council. What is the council? The council consists of representatives of the principal Allied and Associated Powers, together with representatives of four other members of the League. Remember, in this council we Americans have one vote—ONE VOTE. All of Europe and the East have the other votes. What would happen if we should chance to send as our representative a mere man; one who occasionally makes mistakes, as you and I do; one who might, under stress of powerful influence, forget the American point of view, as some of us do when we receive the adulating flattery of foreign diplomats? Now what would happen if there should be another flurry in the Balkans? What would happen if the council, with fighting blood in its veins, inherent through generations of material influence, should cast its vote for war? In case our representative protested, how much would our one vote count for as against those of all the other Powers? We would suddenly awake some morning to hear the newsboys crying out that the Balkans were at war again, or that the tribes of Arabia had broken their pact and were fomenting trouble, or that the Japs refused to give up Shantung and China was in arms—or—why go further? Where would our one little vote be in the European hat?

This question can never be settled in the right way unless each man and woman in our country makes it personal to himself. Would you be willing to send your son or would you be willing to go yourself to fight the battles of the Armenians, or the Turks, or the Slavs? Would you be willing, on the voice of one man, to pour out the treasure of your soul and your house to settle the quarrels of the European cockpit?

We have of recent days gotten into a most complacent habit of saying, "Oh, yes, we'll send our army." To those I would ask, "What do you mean by our army? Do you mean to say that you can assume a high moral standard, then pay someone else to back up your principles—someone else to die for you?"

If we accept Article X, it means that you and I must be ready at any moment to answer the call of European diplomats. We must feel our obligations to the League Covenant so deeply that we are willing to go ourselves into the desert and into the wilderness. Are you willing to go to the Far East; are you willing to go into the ice and snow of Siberia and there expend the strength of your body to settle a far-distant neighborhood quarrel?

The entire question must be put up to us from a purely personal standpoint, for never has a more vitally dangerous policy been promulgated than that which we face as a nation today. And this question must be translated to us in simple, plain language, stripped of all cant and idealism. We must hear the plain facts. I have such an unbounded faith in the good sense of our American people that I believe when they see the truth, they shall not be content until this document is modified to such an extent that our country is in a position of safety.

One man, one American on the Council! One man to speak for a nation! There is no one man who has ever been created who is qualified to speak for an entire nation. It takes the minds of many men, the wisdom of the many to form a complete, composite public opinion; so for that reason our Congress and our Senate must ever have the last word; ever be the voice of the great majority; and if by nullifying the power of these two bodies we weaken our national life, we do so at the expense of our very existence, for the benefit of Europe and the Far East. Are we willing to commit this suicidal act?

We have been asked to ratify the treaty "at whatever cost of independent action," and should we object to this document, we are told that we have "pygmy minds."

We mothers face simple facts. We know that the fathers of our children are not pygmies, and we know that we mothers were not pygmies when we sent our sons to France! What would become of "OUR COUNTRY" if the policy of "without the dotting of an 'i' or the crossing of a 't'" should rule our destiny? The

pronoun would be changed from "our" to "we." Foreigners abroad would exclaim, "We shall do thus and so with America;" this they would say of OUR COUNTRY, our sacred country, for which we gave our sons—the country whose soil is the substance of our being, whose soil was watered by our tears, hallowed by our grief, glorified by our sacrifice! And now you men in Washington would fill our homes with the Babel of the East. You would have our destinies ruled by those who, racially, can never understand us.

Have the Senators of the Administration lived so long in hotels that they have forgotten what the word "HOME" means?

Have they wandered so long in the dusky twilight of the gods that they have forgotten that the sun rises in the East?

There are men, true men, we mothers know it, up there in Washington who are fighting to modify this iniquitous document, and back of these men let every true-hearted American stand with all his strength; for when you and I go our way and the day is spent, when history will record the sorrows and joys of our national family, these men who kept for us our undivided sovereignty will be the great ones of American tradition.

A Man Who Wilfully, Without the Shadow of Foundation of Truth, Makes a Charge Against the Manufacturers Record, Is Hardly to Be Counted as Adding Much Strength to the Advocacy of the League of Nations, and of Such There Are Many.

Editor Manufacturers Record:

Please allow me publicly to apologize for the injury to your feelings or your reputation for independence caused by an article by me in the New York Evening Post, wherein I group you with the American Manufacturers' Association as "its organ" in the campaign against the League of Nations. You charge me with "falsehood" in making that statement. "Falsehood" is rather a rough word. Whatever justification you have for employing it in this case lies in my use of the pronoun "its," implying some degree of possession or control over you on the part of the Manufacturers' Association.

I plead guilty to inaccuracy in that implication through accepting the statements of others and printed assertions to the same effect. I was misled into accepting these statements as true by my observation that you took the same ground toward the League, the tariff and labor as the Manufacturers' Association.

Beyond that, however, I feel that your indignation at my article is hardly justified, and seems a bit forced. You admit that you did attack the League of Nations from the moment it was proposed, and in your pulverizing attack on me you hurl verbal bricks at it as violently as Messrs. Borah and Johnson and Reed and the American Manufacturers' Association officials. You take evident pride in ranging yourself with those enemies of the League as brothers-in-arms. Consequently, I do not think you should be offended if I say that you and the Manufacturers' Association are what might be termed "co-organs" in the anti-League fight.

You accuse me of falsehood in charging extreme protectionists and exploiters of labor with inspiring the anti-League fight, but you offer no argument to refute it. You cite one man, Mr. Gary, who is a great employer of labor, and was at one time a supporter of the League. What does that prove? Nothing, except that, like every general rule, mine has exceptions which from the fact that they are exceptions prove that it is a rule. What Mr. Gary's reasons for differing from the general mass of his associates was I neither know nor care. Whether he still supports the League or has reversed himself like Messrs. Lodge and Knox has no bearing on the truth of my charge.

You say that "many manufacturers" besides Mr. Gary are for the League of Nations. I grant you that, but please note that my charge was that the League's enemies were and are the "extreme" protectionists. You will find that those manufacturers who support the League are neither extreme protectionists nor exploiters of American labor, and it is fortunate for the country that their number is growing rapidly. Their advocacy of the Covenant tends to substantiate rather than discredit my charge against the other kind of manufacturers.

The men whom I accuse are those whom Mr. Taft calls the "Bourbons of Business," who, he declares, are more dangerous enemies of the nation and more effective breeders of unrest than the radicals in the ranks of labor. You offer no argument or proof against my charge that their fight against the League of Nations is inspired by the dollar motive.

KENT PERKINS.
Melrose Highlands, Mass., November 29.

Extensive Building Program Under Way in Atlanta.

Atlanta, Ga., December 3—[Special.]—Never in the history of Atlanta has this Southern metropolis enjoyed an era of greater prosperity. In addition to the important industrial developments reported in a previous article in the MANUFACTURERS RECORD, several other projects have been announced in which construction work has already started or will start shortly, amounting to at least \$1,500,000.

Despite continued scarcity of both labor and material, as well as record prices in building operations, 227 permits were issued in November, calling for an expenditure of \$501,725, as compared with 135 permits at a cost of only \$63,435 in November, 1918. New construction last month, however, was sharply less than in October.

This city's building operations for 11 months of the year amounts to \$8,628,845, or almost three times as great as during the same period a year ago.

Nineteen hundred and nineteen will be Atlanta's record construction period, with the value of permits likely to pass the \$10,000,000 mark.

The Massell Construction Co. has begun work on three buildings in different sections of the city that will cost approximately \$200,000.

Twenty-one new store buildings are to be erected on Peachtree street, involving an expenditure of more than \$500,000, according to information from reliable realty sources.

The Massell Realty Co. has purchased property on Peachtree street, and eight store buildings are to be erected there. Upwards of \$250,000 is involved in this deal, including the building program. This company is now building eight new store buildings in Ponce de Leon avenue and North Boulevard, and is also constructing two of the largest apartment-houses in Atlanta.

It has been learned that a prominent Atlanta capitalist has purchased property on Peachtree street, where he will build eight modern store buildings, and that others are preparing to build five more store buildings in the same section, making a total of 21 new buildings to go up in this part of the city.

Walter T. Candler has purchased property in Grant Place, facing both Peachtree and West Peachtree streets, where he will erect a modern building to be used by an automobile accessories company. The approximate cost will be \$200,000, and construction work will be in the hands of the Massee Realty Co.

At the southwest corner of Broad and Alabama streets M. Rich & Bros. Company will build the largest department store south of Philadelphia. It will occupy almost an entire city block, and while definite announcement has not been made, it is understood the project is well under way.

One of the largest paint manufacturing plants in the South is to be erected by the Johnson Paint Co. on Milton avenue in Roseland, a suburb. Construction work is already under way. The office building will be three stories in height and the storage building but one story. The approximate cost will be \$100,000.

Inland Steel Co. to Install Powdered Coal Equipment.

Reconstruction with a view to increasing production and efficiency to meet the constant heavy demand for sheets has prompted the Inland Steel Co. to proceed at once with the installation of a complete powdered coal system for firing 40 furnaces in their plant at Indiana Harbor.

Greater output per ton of fuel used and reduced labor cost are to offset the present labor shortage and high cost of fuel.

For the initial installation, powdered coal will be applied to 16 sheet furnaces, 16 pair furnaces, 3 continuous plate mill furnaces, 2 continuous bar mill furnaces and 3 slab heating furnaces.

The contract, which has been awarded the Quigley Furnace Specialties Co., 26 Cortlandt street, New York, calls for the engineering work and installation of a complete milling plant of 20 tons hourly capacity with provision for extensions, compressed air distribution system for transporting pulverized fuel to furnace bins through small diameter standard wrought pipes, and the necessary fuel feed controllers, air supply system and burners.

Arrangements are also being made for an extension to their boiler plant and other departments.

Cotton Bank Plan in South Carolina.

A proposition to organize a cotton banking and export corporation in South Carolina was one of the subjects for discussion at the annual convention of the South Carolina Cotton Association meeting at Columbia last week, and it was decided to form an organization similar to that in Georgia, with \$2,000,000 capital stock.

Concerning this, J. S. Wannamaker, president of the association, has issued a statement, which says in part:

"While the South Carolina warehouse act has served a great purpose, still to meet present conditions it is absolutely necessary to make certain changes concerning the warehousing of cotton, it being realized that unless this is done the warehouse system now being operated throughout the South by interests opposed to the producer will gain a strong hold in the State. For this reason certain additions to the present warehouse system will be discussed and in all probability go into effect. These proposed plans have met with the hearty approval of the farmers, merchants, bankers and business men, not only throughout the State, but throughout the entire cotton belt. It is absolutely necessary for the producer to not only warehouse his cotton and finance it while in the warehouse, but to go one step further, market his cotton and finance it until it reaches the consumer. Several plans that will complete the chain have been worked out, these plans have been submitted to the best-posted farmers, merchants, business and professional men throughout the South, and have met their unanimous approval, it being the consensus of opinion that it will make a complete change in the handling of cotton and will prove of untold benefit to the producer and the entire South. It will remove the unnecessary middleman, put the producer in direct touch with the consumer and the manufacturer both at home, in New England and abroad. This banking and export corporation solves the problem."

"As a result of the steps taken at this meeting the South will warehouse, market and finance its own cotton. The Banking and Export Corporation will receive the heartiest support and cooperation and the farmers, merchants, bankers, business and professional men have declared whole-heartedly for it. Leading bankers throughout the South to whom these plans have been submitted are supporting it and urging the speedy completion of the necessary corporations for carrying the plan into effect. A similar organization has already been formed in Georgia with a capital of \$2,500,000. There is no question but that one will be established in every State in the cotton belt, thus completing the chain throughout the length and breadth of the cotton belt."

"As a result of all this work, there is no question but that cotton will never again sell below the cost of production; that there will be a tremendous saving in the uneconomic manner in which cotton has been handled heretofore."

President Wannamaker appointed the following committee to work out the details of the proposed institution: B. Hart Moss, chairman; E. D. Bates, both of Orangeburg; John L. McLaurin, Bennettsville; D. D. Wannamaker, St. Matthews; R. L. Manning, Sumter; L. G. Holloman, Anderson; B. C. Matthews, Newberry; A. J. W. Perritt, Darlington; D. K. Coleman, Winnsboro; C. H. Barron, Columbia; L. J. Browning, Union; R. B. Laney, Cheraw, and J. Swinton Whaley, Edisto Island.

Completes \$800,000 Plant Betterments.

At a cost approximating \$800,000 the Potomac Electric Power Co., Washington, D. C., has completed plant betterments it has had in progress during the year. Outlining the improvements, Francis R. Weller writes to the MANUFACTURERS RECORD:

"The company has put into service a 20,000-kilowatt General Electric turbine with a Worthington condenser in the Bennington power plant. In order to accommodate this generating unit, which is the largest in the Bennington station, it was necessary to extend the turbine room. The company has also added two additional 1000 horse-power Babcock & Wilcox boilers with Taylor stokers, and installed 12 Taylor stokers on 12 of the 600 horse-power Babcock & Wilcox boilers formerly equipped with natural-draft stokers. A new intake chamber to condense water has been completed, in which four Rex revolving screens have been installed. All this work was designed and construction carried out under the direction of Francis R. Weller, consulting engineer, Washington, D. C. R. L. Weide was the engineer in charge of construction."

Oil Production in Texas and Midcontinent Fields.

Fort Worth, Tex., December 4—[Special.]—New figures on oil development in the fields surrounding Fort Worth have been announced by the Chamber of Commerce. They show that on November 1 there were 933 rigs and 2259 drilling wells in the new Texas fields; 513 rigs and 1105 drilling wells in the Oklahoma fields, and 169 rigs and 359 drilling wells in the Kansas fields.

In the 10 months' period, from January 1 to November 1, according to the figures, 2772 wells were completed in the new Texas fields. Of this number, 80 per cent were oil producers, 1.1 per cent were gas wells and 18.5 per cent were dry. The average flush production was 606 barrels. In the same period, 7049 wells were completed in Oklahoma. Of this number, 51.9 per cent were oil producers, 8.7 per cent were gas wells and 39.4 per cent were dry. The average flush production was 114 barrels. During the period there were completed in Kansas 3012 wells, of which 75 per cent were oil producers, 6.8 per cent gas wells and 18.3 per cent were dry. The average flush production of the Kansas wells was 60 barrels.

Two raises in the price of crude oil, which have been announced in the past week, will mean more than \$31,000,000 additional annual income to the oil producers of the new North Central and West Texas fields. The first raise boosted all of the West Texas crude and the Electra and Petrolia crude from \$2.25 per barrel to \$2.50 and the Burk Burnett from \$2 to \$2.25. This was followed immediately by another raise in Burk Burnett from \$2.25 to \$2.50.

At the present rate of production this raise will increase the payments to producers by \$85,000 per day, or \$31,000,000 per year. A further increase before the first of January is confidently predicted.

Twenty large tracts of strictly wildcat acreage are to be tested during the coming year by the Allendale Oil Co. This concern has made arrangements with several of the large producing companies under which it will take tracts of from 5000 to 10,000 acres and drill them, retaining 1000 acres and dividing the balance among the other companies. In this way practically the entire cost of drilling will be absorbed by the production companies which divide most of the acreage.

The Allendale company is a drilling concern recently organized and capitalized at \$5,000,000. It now has eight strings of tools at work in West Texas. All companies concerned have agreed upon a geologist who will make the locations.

\$5,000,000 Texas Oil Industry Activity.

Developments in the Texas oil fields are announced for the White Oil Corporation, for which the J. G. White Engineering Corporation of New York is the engineer and contractor. This engineering company sends the MANUFACTURERS RECORD an outline of the developments as follows:

"Preliminary estimates of cost approximate \$5,000,000. Members of our engineering and construction staff have returned from Texas with details for the White Oil Corporation's 225-mile pipe line.

"Present plans for this pipe line, which will extend from Houston to the Ranger, Desdemona and adjacent oil fields, contemplate the use of 8-inch 29-pound pipe, with a capacity of 20,000 barrels of crude oil per 24-hour day; the line to be operated at a pressure of 700 pounds per square inch.

"Pumping stations will be located at intervals of approximately 40 miles. The equipment of each station will consist of three duplex, double acting, outside packed plunger power pumps, direct driven by three Diesel type crude oil engines. Each pump will have a capacity of 10,000 barrels per day when operating at a line pressure of 700 pounds. Thus two of the units will provide a line capacity of 20,000 barrels, while the third unit will be held in reserve. A spare unit is installed for the purpose of eliminating shut-downs, thus insuring continuity of operation. In addition to the units mentioned above, each station will be equipped with the necessary auxiliaries such as air and water circulating pumps; cooling systems, lighting, etc.

"Each pumping station will be housed in a building constructed of reinforced concrete measuring approximately 40 feet by 115 feet by 16 feet and will be equipped with a traveling crane. At each station there will be two steel storage tanks of approximately 37,500 barrels capacity each, and cottages to provide housing for the operating engineers."

Petroleum Production of United States.

The production of petroleum in the United States in October, 1919, amounted to approximately 33,319,000 barrels, a decrease of 348,000 barrels compared with that in September, 1919, according to reports issued by the Geological Survey. The average daily rate of production in October, 1919, was 1,074,808 barrels, which was less by 47,425 barrels, or about 4 per cent, than that in the preceding month. However, the production in October, 1919, compared with that in October, 1918, was greater by 2,064,000 barrels. All the fields, except Illinois, shared in the general falling off in daily average production.

PRODUCTION OF DOMESTIC CRUDE PETROLEUM.

(Barrels of 42 Gallons).

Field.	Total	Average	October, 1919.	October, 1918.
			Daily	Daily
Appalachian	2,513,000	81,065	2,344,000	71,225
Lima-Indiana	279,000	9,000	223,000	9,128
Illinois	1,064,000	34,323	1,139,000	36,742
Mid-Continent				
Oklahoma-Kansas	10,764,000	347,226	12,627,000	417,645
Central and North Texas	6,219,000	200,613	1,761,000	56,580
North Louisiana	1,262,000	40,710	1,471,000	47,452
Gulf Coast	1,513,000	49,774	2,033,000	63,580
Rocky Mountain	1,054,000	34,000	1,188,000	38,223
California	8,621,000	278,097	8,446,000	272,452
Totals.....	33,319,000	1,074,808	31,255,000	1,008,226

SUMMARY OF CRUDE PETROLEUM PRODUCTION AND CONSUMPTION IN THE UNITED STATES, JANUARY TO OCTOBER, 1919.

(Barrels of 42 Gallons).

	Production	Total	Consumption.
		Total	
Appalachian	24,928,030	24,586,000	
Lima-Indiana	2,928,000	2,829,000	
Illinois	10,477,000	8,254,000	
Mid-Continent	161,228,000	159,382,000	
Gulf Coast	17,095,000	12,667,000	
Rocky Mountain	11,327,000	11,696,000	
California	35,084,000	35,074,000	
Totals.....	313,097,000	304,498,000	

Large Gas Well in Texas Panhandle.

Amarillo, Tex., December 3—[Special.]—According to an official report made to the Railroad Commission of Texas today, the largest gas well yet brought in anywhere blew in last week in Potter county, in the Texas Panhandle, about 25 miles north of Amarillo. M. C. Nobles, president of the Amarillo Oil Co., advises the commission that the well came in at 1665 feet, and is estimated at between 100,000,000 and 120,000,000 cubic feet of gas daily. It is a 12-inch hole, and difficulty has been experienced in capping the well, which was accomplished today. The test was made by experts after the well had been flowing without restraint from the 12-inch hole for more than six days. This is the fourth gas well brought in in this immediate locality, and brings the total production up to 150,000,000 feet.

For Louisiana Oil Land Development.

Plans are progressing for the organization of the Pan-American Petroleum & Transport Co. for the development of Louisiana oil land to the extent of nearly 40,000 acres. This property has been purchased and the company is to have a capitalization of \$2,000,000 for a thorough testing of the lands, as recommended by geologists. Successful results from the investigations will be followed by drilling wells, laying pipe lines and building refineries. Edward Doheny of New York, president of the Pan-American enterprise, and Franklin K. Lane, Jr., both of New York; J. C. Anderson and J. M. Danziger, both of Shreveport, La., vice-presidents of the Pan-American corporation, are among those interested.

Another Large Gas Well in Henryetta Field.

Henryetta, Okla., December 3—[Special.]—The bringing in of another 30,000,000 gas well in the Henryetta field adds a companion to a well of like capacity which was brought in earlier in the week, also increases the visible supply of commercial gas in Henryetta beyond 400,000,000 feet. This last well is known as Deane No. 2, in Section 22-11-11, where great quantities of gas are constantly being brought in and held for factory consumption. The first indication of a gas gusher was had when the drill at 2340 feet went into 10 feet of sand opening the mighty rush of fuel gas.

Florida to Take Bids on \$2,500,000 of Road Building Before January 1, 1920.

Tallahassee, Fla., December 6—[Special.]—Road construction of a permanent type, amounting to approximately \$2,500,000, will be advertised by the State Road Department of Florida before January 1, 1920, according to announcement made by M. M. Smith, chairman of the department.

Every month in the year is a working month in the State of Florida, and the State Road Department hopes to have all of this work under contract and the bulk of it under active construction by the first of February.

It is expected that this large amount of work will attract some of the big road construction contractors of the country who are compelled to shut down active work elsewhere during the winter months, especially as all of the work is to be under the direct supervision and control of the State Road Department.

Full information may be obtained by prospective bidders on the proposed work by addressing the State Road Department, Tallahassee, Fla.

Some Passenger Trains Are Cut Off.

With a view to further conservation of coal by the Railroad Administration, it is announced that the regional directors have been instructed to review the situation carefully and have been authorized to eliminate passenger trains which can be spared with the least inconvenience to the traveling public.

The first cut in the train service was made at the beginning of this week, certain passenger trains being annulled and a large number of parlor cars being discontinued temporarily. The latter are cut off in order to provide maximum seating capacity on such trains as are run.

It is further stated in explanation of this curtailment of railroad service that the shortage of coal has reached a point where it is vitally necessary to take this step and to appeal to the public to accept resulting discomfort without complaint. It is urged that everyone who can possibly do so refrain from traveling until the situation improves.

Fulton County, Georgia, Completes Big Year in Highway Improvements.

Atlanta, Ga., December 2—[Special.]—Highway improvements realized by Fulton county, Georgia, this year, including work done inside of Atlanta, total the remarkable figure of \$1,185,000, it has just been shown by records compiled by W. A. Hansell, Jr., superintendent of county public works. This surpasses all previous records, being by far the greatest amount in the way of public improvements ever before accomplished by the county.

The \$1,185,000 figure does not include any part of the extensive repair work done by the county on county roads and city streets, which in itself represents many thousands of dollars. Neither does it embrace the expense of oiling roads and streets.

Of the total cost of road building, \$600,000 was spent on roads outside of Atlanta and \$585,000 on the city streets, the latter in co-operation with the city construction department.

National Rivers and Harbors Congress to Meet.

The fifteenth convention of the National Rivers and Harbors Congress is to be held in Washington, D. C., on the 9th, 10th and 11th of December. The principal subject of discussion will be the legislation which the friends of waterways desire to have embodied in the Railroad bill, including provisions for the co-ordination of rail and water transportation. Neither the Esch bill, as passed by the House, nor the Cummins bill, which is pending in the Senate, completely satisfies the waterway people, and they will decide at the convention what more they will ask for.

77 Per Cent Increase in Bank Deposits.

With \$58,987,912.53 on deposit in Oklahoma City banks at the close of business November 17, an increase of \$25,812,582.61 was scored over the \$33,175,339.92 on deposit at the close of business November 16, 1918, a gain of 77 per cent in 12 months.

High Prices for Tobacco.

Richmond, Va., December 1—[Special.]—With approximately 75 per cent of the tobacco crop raised in the Old Dominion now on the market, dealers are beginning to figure the amount of coin which will come into the State of Virginia as the result of high prices prevailing for the weed during this season. While definite figures are not yet available, a close estimate shows that fully \$352,100,166 has so far been distributed among the growers of Virginia and northern Carolina. Their sales during the past week were especially heavy and increased prices prevailed. So far the total sold in the Lynchburg market aggregates 4,324,000 pounds. In some instances the price has been \$150 per hundred pounds for what is known as the bright variety.

The Danville market reports handling 23,306,426 pounds of tobacco at an average price of \$59 per hundred, which alone brought an income to the farmers of that territory of \$13,137,045. South Boston, another large market in Virginia, has disposed of 13,994,435 pounds, averaging about \$7.833,944 for the season's crop. Drakes Branch, Va., sold 200,000 pounds during the past week, bringing in a net return of approximately \$77,800. According to reports from Rocky Mount, N. C., the season's shipments amount to 16,800,000 pounds, bringing more than a million dollars into that region.

Reports indicate that because of the scarcity of tobacco the commonest of lugs, heretofore thrown into the discard because of no market, are now selling at \$35 per hundred pounds, and advance of approximately 300 per cent, or the price once received for the best grades of wrapper tobacco.

This week promises to see the formal opening of the bright tobacco and already buyers are anticipating a heavy trade in this variety.

North Carolina Property Assessed at Full Value.

Raleigh, N. C., December 4—[Special.]—All the property in the State is being revalued, at its true value, under an act of the Legislature last March, and this great work will be practically completed by January 1. Next May, when the Legislature is to meet, in adjourned session, to consider this revaluation, everything will be ready for its view. There are in the field expert appraisal engineers, assisting owners of industrial plants to fill the questionnaires. The rule of value May 1, 1919, is being applied in all cases. Governor Bickett, who so earnestly pressed this legislation, is immensely pleased not only by the large increase in property values and by the vast amount of property being put on the tax books at its real value, but by the public spirit shown by all classes of people. In one county 75 per cent of all classes put in their property at the correct value, a few overestimated it, and the few who underestimated were shown up by the truth-tellers, and so are really put on the tax books at true values by their own countrymen. It is one of the greatest forward steps ever taken by North Carolina.

Steam Laundries, Ice and Light Plants Required.

PORTER A. WHALEY, General Manager West Texas Chamber of Commerce, Stamford, Tex.

Since the discovery of oil in West Texas and the remarkable growth of numerous towns into cities, etc., there have been tremendous demands in this region for steam laundries, ice and light plants and other industries.

Most of these cities also need additional hotel facilities, and are willing to take stock or otherwise secure them by sufficient financial and civic backing.

We have long considered the MANUFACTURERS RECORD the leading exponent of publicity along industrial and civic lines, not to speak of its splendid Americanism, and wish that every one of our 2800 members were subscribers to it.

Wants Canning Machinery and Creamery Equipment.

The Chamber of Commerce of De Ridder, La., would like the names and addresses of firms manufacturing canning factory machinery and creamery equipment. De Ridder is now ready to consider the building and equipping of such plants, and desires also experienced operators for them.

Three Great Conventions Meet in Washington to Discuss Improvement of Nation's Transportation Facilities.

Washington, D. C., December 9—[Special.]—Combining their efforts, though acting separately, three great American bodies are meeting in Washington this week for the purpose of discussing the one subject of transportation. The Mississippi Valley Association, the National Rivers and Harbors Congress and the Mississippi to Atlantic Internal Waterways Association each made a substantial contribution toward the all-important problem, and many of the delegates said they felt the goal of their aspirations had been brought a little nearer.

The Mississippi to Atlantic Internal Waterways Convention has a definite project. That body wants the Government to develop all the navigable streams of the United States within the next five years. It is claimed that the work which it was hitherto thought would require 50 years of time and effort to accomplish can by a concentrated drive be brought to pass in one-tenth of that time. Therefore the association has asked the Government to appropriate \$100,000,000 a year for five years, and to make supplemental appropriations if this fund should prove inadequate.

Included in the comprehensive scheme of this organization is the development of hydro-electric energy, the creation of great nitrate plants and the reclamation of swampy regions. Every State that is watered by the Mississippi or any of its tributaries would become beneficiaries of this ambitious project.

J. W. Worthington of Sheffield, Ala., said the United States should quit importing nitrates, for all the nitrates that it will ever be likely to need can be taken from the air through processes which can be placed in operation at the great plant at Muscle Shoals. He declared also that it is no longer necessary for the United States to import potash, for means had been found to produce all that will be needed.

"I might qualify this statement by explaining that it will not be necessary as a national policy for us to import our fertilizer," said Mr. Worthington. "All that we will need, after we get the machinery in proper working order, can be produced in the United States. Take the matter of nitrates. In the last 30 years we have paid Chile a half billion dollars for nitrates, one hundred and fifty million dollars of which has been taken by the Government of that country in the form of an export duty.

"I say that I have as much faith in Muscle Shoals as I have in the United States, and I believe it is about time we ceased paying tribute to other countries and began to produce our own nitrates and potash." Mr. Worthington addressed the convention of the Mississippi to Atlantic Internal Waterways Association. He was loudly applauded when he spoke of the possibilities of Muscle Shoals. The delegates from the Northern States assured Mr. Worthington of their aid in making his dream of the future greatness and usefulness of the big nitrate plant come true.

President Harry H. Merrick of the Mississippi Valley Association said all the organizations were really co-operating in an effort to promote transportation. The association itself appears to be opposed to some of the features of the Cummins Railway bill, but to approve the anti-strike provision. It would also penalize railroad managements which prevent the natural flow of commerce by lockouts or other methods of dealing with men, which usually result in public inconvenience.

"Transportation," said Mr. Merrick, "is the most important problem before the American people, and it should be made in every way more efficient. The Mississippi Valley Association is ready to aid any project which promises a fuller utilization of the natural means of transportation. In other words, we want all the navigable streams of the nation improved so that they will be made serviceable for carrying freight. We must have the means of taking the products to the market as well as the facilities for production."

Resolutions of sympathy with the President were adopted and sent to Secretary Tumulty. The delegates arranged for an interview with Walker D. Hines, Director-General of Railways, when they placed before him the needs of the Southern States in relation to transportation. They demanded a closer co-operation between the water and rail carrying systems. Mr. Hines said he was in full sympathy with the aspirations of the association to force the streams of the nation to be of real service to commerce and industry by carrying the products of the farm and the factory to the consumers.

Crude Sulphur Exports for November.

Texas City, Tex., December 8—[Special.]—During the month of November 36,000 tons of crude sulphur were shipped from the port of Texas City by the Freeport Sulphur Co. and the Texas Gulf Sulphur Co. The loading facilities of the two companies at Texas City are capable of handling a total of 144,000 tons of sulphur a month. Bins have been erected here for storing 15,000 tons of the product. It is stated that if enough steamships can be allocated for Texas City the sulphur shipments through here will be brought up to the full capacity of the loading facilities very soon.

Besides the water shipments of these two companies, the movement of sulphur by rail to markets and distributing points in the United States is large. The Freeport Sulphur Co. is preparing to make Freeport, situated near the mouth of the Brazos River, its principal export shipping point. The 1920 budget of the Congressional Rivers and Harbors bill contains a proposed appropriation of \$471,000 for further improvements to the channel and harbor at Freeport. The Freeport Sulphur Co. is building two additional ocean-going steamships at Kairney, N. J., to be added to its present fleet of four vessels.

An interesting controversy over the value of the property of the Union Sulphur Co. at Sulphur, La., has arisen and has been taken into the United States District Court at Shreveport for settlement. The State Board of Affairs of Louisiana fixed the assessed value of the company's sulphur property at \$31,039,395. The company alleges that this valuation is excessive, and has filed suit in the United States District Court asking that the assessment be reduced to \$12,000,000. In contesting this suit, the State Board of Affairs asserts that the company has more than \$12,000,000 worth of sulphur from its mines in storage above ground at this time.

Many New National Banks and Capital Increases.

The activity in banking is indicated by a report from the office of the Comptroller of the Currency saying that on November 30 there were pending 278 applications to authorize new national banks, the aggregate capital of which was considerably more than \$19,000,000. At the same time there were also pending 306 applications to increase capital, the total increase proposed amounting to more than \$33,600,000 besides 47 other applications for which the amount of increase had not been determined. The applications for new charters included the following: Virginia, 7; South Carolina, 6; Texas, 19; Arkansas, 10; Oklahoma, 15. There were also a number of applications from other Southern States ranging from one to five in number. During the month of November charters were granted for 28 new national banks with total capital of over \$1,200,000.

Wealth of Oil Production Shown in Bank Returns.

Fort Worth, Tex., December 4—[Special.]—Fort Worth is gradually beginning to realize what the tremendous oil development in the surrounding region is to mean to the city. A bank statement just issued showed more than \$84,000,000 of bank deposits. A year ago the deposits were \$35,000,000. The gain in one year is \$49,000,000, or 140 per cent.

The rate of gain is rapidly increasing. The bank statement issued September 12 showed total deposits of \$62,333,294.34, and that of November 17 showed \$84,360,446.44.

Federal Licensing of Industries.

The proposed licensing of the meat-packing industry is discussed in a current pamphlet which is a reprint of an article in the Bankers' Magazine for September, 1919. It tells of the operations of Armour & Co. of Chicago, is illustrated appropriately to show the extent and workings of that large meat-packing plant, and demonstrates not only the extent of the business, but the wide range of its products. The enterprise was founded by Philip D. Armour, and the president of the company now is J. Ogden Armour, his son.

Another Steamship Line from Baltimore.

The Merchants & Miners' Transportation Co. of Baltimore proposes to add another line to its steamship service, mainly between Norfolk, Va., and Havana, Cuba. The service is to begin soon, a ship sailing from each end of the line every 10 days.

Typical of Many Letters Which Fill Our Mail

Americanism Approved.

In sending subscription to the MANUFACTURERS RECORD the Campbell-Ware Company, Jacksonville, Fla., write:

"This is a shot for the Bolsheviks with intense approbation of your Americanism."

For the Right.

S14 Avon Street,

Akron, O., December 2.

I want to take this opportunity of congratulating you on your fearless stand in regard to the League of Nations and Peace Treaty.

D. R. SHIRK.

Then Drink It Freely.

La Coste Evans.

Cheraw, S. C., November 21.

Kindly credit me with check to cover enclosed. A Southern man without the MANUFACTURERS RECORD is like a baby without mother's milk. Begin with this week's issue.

LA COSTE EVANS.

Americanism Strongly Commended.

Brogan Mills.

Anderson, S. C., December 2.

I wish to take this opportunity to express my appreciation of the wonderful work you are doing, and especially the stand you have taken on the League of Nations, Bolshevism, maintenance of law and order and your endeavor to place in the limelight those menly-mouthed politicians who would sell the integrity of this once independent nation of ours.

JOHN H. CAREY.

The Foundation of Our Republic.

Law Offices of
Lucky & Andrews.

Knoxville, Tenn., November 25.

Enclosed find my check for \$1 for which please send me copies of "Am I My Brother's Keeper?"

You are doing a great work for loyalty to our King, the Ruler of us all, as well as for loyalty to our Republic, founded in His fear and under His guidance.

C. E. LUCKY.

Bolshevism an Unspeakable Menace.

Lufkin Cotton Compress Co.,
J. F. Christian, Manager.

Lufkin, Tex., December 1.

Have just reread your article on Bolshevism, on page 75 of the MANUFACTURERS RECORD of November 27, 1919, and in return will say that I do not think too much can be said on this line, as I am thoroughly convinced that this type of humanity would be a menace to Hell, let alone civilization.

A. C. L. HILL.

"Am I My Brother's Keeper?"

The White Furniture Co.
Mebane, N. C., November 29.

Your recent enclosure or supplement (Am I My Brother's Keeper?) as to the Golden Rule was received, and we have framed same and have hung it up in our factory. It is so straight to the point and so filled with the true spirit of Christianity and so well and concisely expressed, we would like to know if you can have it put in a smaller folder to be enclosed in an envelope?

We would like to have 1000 copies for distribution, if this can be done.

We wish for you from the bottom of our hearts continued strength in the wonderful fight that you have made and are making for our America; first, in your fight for preparedness; second, in your fight for Americanism during the war; third, in your fight against the League of Nations, without reservation to preserve us from "entangling alliances" and preventing us from being a "Meddlesome Mattie."

J. S. WHITE, Treasurer.

The Gospel of Americanism.

Newton County Oil Co.

Deweyville, Tex., November 20.

Enclosed please find order for \$6.50 which I consider to be my subscription to the greatest missionary fund on earth, viz., the spreading of the gospel of Americanism among the heathen citizens and non-citizens of this man's country.

Respectfully yours for another year,

CAPT. D. G. PRICE.

Help Forward a Sane Adjustment.

Harvey Hubbel, Inc.,
Electrical Specialties.

Bridgeport, Conn., November 24.

May the writer improve this opportunity to express his great interest and appreciation of the splendid editorials acent industrial conditions prevailing in this country at the present time. These surely ought to help toward a safe, sane and satisfactory adjustment of the difficulties now confronting us.

W. I. GUGGENHEIM, Advertising Department.

Believes in the Doctrine.

C. T. Patterson Company
(Limited).

New Orleans, La., November 25.

We have your favor enclosing reprint from your paper, this being dated November 18. We want to congratulate you on the work you are doing and can advise frankly that we like this sample of your work and thoroughly believe in the doctrine you are teaching, as it cannot help but assist in arousing the latent patriotism of America against this anarchistic movement.

The writer desires to assure you of his hearty appreciation of your efforts and to wish you every success. We are pleased to enclose card subscribing to your journal.

W. P. SIMPSON, President.

High Time to Wake Up.

Rudolph T. Nofftz,
Contractor and Builder.

Champaign, Ill., November 4.

I have read several copies of your valued paper and it gave me that feeling that makes a true American say "Amen." It is high 12 and a great many have not yet discovered that it is time to make up and be prepared to defend our own America and its true inhabitants who dwell therein.

You therefore will find enclosed check for \$6.50 in payment of MANUFACTURERS RECORD to year ending 1920.

I want you to help me and I want to help you and we want the help of every true American to save our country.

R. T. NOFFTZ.

A Prayer for Divine Guidance All Should Make.

St. Paul's Lutheran Church,
Rev. M. L. Enders, Pastor.

Cumberland, Md., November 28.

Ex-United States Senator George L. Wellington, who regularly attends my church and takes deep interest in the interests thereof, from time to time places in my hands a copy of the MANUFACTURERS RECORD. I read it with the deepest interest. Some time ago I read an article on the League of Nations and the Peace Conference, wherein was stated that "there was no time to offer appeal for Divine aid." This in answer to the request of several ministers of the Gospel. Most unfortunately, that copy has been lost. I want a duplicate, and ask you if possible to send me one. Whatever expense I'll cheerfully pay; furthermore, I wish to say that throughout the war, and subsequently, your articles for God and country strike a responsive chord in my heart. Today the Senator placed in my hand the issue of November 20, which again gives me food for thought. May the Sovereign of all the earth guard and keep our native land.

M. L. ENDERS.

TEXTILE

Plans for \$3,000,000 Enlargement.

Plans and specifications have been prepared by Lockwood, Greene & Co. of Boston and Atlanta for a \$3,000,000 enlargement of the Winnsboro (S. C.) Mills. This will include construction of additional buildings and installation of new machinery, with accompanying equipment, for manufacturing tire cord fabrics. S. H. Greene of Lockwood, Greene & Co. is president of the Winnsboro Mills, and the United States Rubber Co. is under contract to buy the entire Winnsboro production until 1927.

Enlargements to Cost \$300,000.

The West Point (Ga.) Manufacturing Co. will expend \$300,000 to enlarge its Langdale cotton factory. Its plans include building a 350x100-foot three-story additional mill and several warehouses.

Textile Mill Notes.

Bellevue Cotton Mills, Hillsboro, N. C., will double capacity.

Barnesville Manufacturing Co., Fairmont, W. Va., will double capacity of woolen mill.

Browning Hosiery Mills, Chattanooga, Tenn., will increase capital from \$25,000 to \$50,000.

Rosemary Manufacturing Co., Roanoke Rapids, N. C., will enlarge plant manufacturing damask.

Katrine Manufacturing Co., Fort Shoals, S. C., will build an additional structure and install new machinery.

John J. George and associates have incorporated the George Cotton Mills Co., Bessemer City, N. C., with \$100,000 capital.

John O'Daniel Hosiery Mills, Durham, N. C., has been incorporated with \$200,000 capital by Julian S. Carr, Jr., and associates.

Chinnabee Cotton Mills and Highland City Cotton Mills, Talladega, Ala., will build large additions, to include dyeing plant for denims.

Toxaway Mills, Anderson, S. C., which increased capital recently, will add 3100 spindles and 64 looms. This new machinery has been ordered.

McComb (Miss.) Cotton Mills will add 350 looms, and this new weaving machinery has been ordered from the Draper Company of Hopedale, Mass.

R. Goldberg, F. Goldberg and A. Koplow of Columbia, S. C., have incorporated the American Cotton Mills of Bessemer City, N. C., with \$250,000 capital.

Cowpens Manufacturing Co., Cowpens, S. C., will increase capital to \$500,000 and reorganize picker and card rooms. J. E. Sirrine, Greenville, S. C., is the engineer and architect.

A silk mill with each loom driven by an electric motor will be established at Grottoes, Va., by the Puritan Silk Co. of Paterson, N. J. A 300x45-foot brick and concrete building will be erected this year and another next year. The machinery equipment has been ordered.

Blue Buckle Cotton Mills, Rock Hill, S. C., recently announced, has organized with Alexander Long, president, and L. D. Potts, treasurer. This company will extend weave shed, besides building a dyehouse and 100 cottages. The building contract has been awarded to the Gallivan Building Co., and the architect-engineer is J. E. Sirrine, both of Greenville, S. C.

The Cotton Movement.

In his report of December 5, Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during four months of the season was 5,033,955 bales, an increase over the same period last year of 208,169 bales. The exports were 2,007,282 bales, an increase of 646,426 bales. The takings were, by Northern spinners, 804,496 bales, a decrease of 60,844 bales; by Southern spinners, 1,534,753 bales, a decrease of 139,632 bales.

UNION WAREHOUSE COMPANY TO BUILD IN ATLANTA.

Company's Plans Include Operation of Compresses in Southern States and Organization of Discount Company.

Atlanta, Ga., December 2—[Special.]—The new cotton warehouse to be constructed in Atlanta by the Union Warehouse Organization Corporation of Boston will cost approximately \$1,500,000, according to an announcement made by Rufus R. Wilson, president of the corporation, at a session of the industrial promotion committee of the Atlanta Chamber of Commerce. Construction work is to begin in the early spring, Mr. Wilson said, and the warehouse will be completed in time to open before the next cotton season. It is to be used mainly for the purpose of storing cotton, but other products will also be stored there.

Architects will begin at once to draw the plans for the new structure, and W. J. Leppert of New Orleans, representing Mr. Wilson in the Southern territory, will remain in Atlanta to look after this end of the project. The building is to be erected on the Turman property on Lakewood avenue, where the corporation has taken an option on several acres of land.

Mr. Wilson also announced that the Boston corporation has arranged to buy compresses operated in the Southern States by the Atlantic Compress Co., by Joseph Newburger of Memphis, Tenn., and by other companies, a total of 65 compresses being involved in the deal. The company is to take over compresses in virtually all of the Southern States.

Arrangements for underwriting the company are virtually completed, and it is to have 30 directors, 20 of whom will be Southern men.

The \$1,500,000 which will be required to erect the warehouse in Atlanta will be raised through the issuance of \$900,000 in bonds and \$600,000 in stock. About one-third of this stock will be allotted to Atlanta, though Mr. Wilson announced that the company will come here regardless of whether this \$200,000 worth of stock is subscribed for in the city.

In connection with the operating company it is planned to organize in Boston a discount company with a capital stock of \$10,000,000. This company is to deal in securities developing through the storing of cotton and other goods in various warehouses to be operated by the Union Warehouse & Compress Co. Such securities will be distributed broadcast over the country to relieve local banks of the necessity of tying up large sums in the financing of cotton deals.

Long Staple Cotton in West Texas.

Lubbock, Tex., December 1—[Special.]—Growing long staple cotton in the South Plains region of West Texas was done for the first time this season. It had been contended heretofore by cotton experts that on account of the high altitude—approximately 3000 feet—and dryness of climate, long staple cotton could not be successfully grown here. S. B. Lynn, a farmer of this county, decided to try the experiment. He planted a small acreage of the staple and has obtained a yield of five bales. He has marketed the first bale at a price of 62 cents a pound. It is stated that the crop did exceedingly well from the beginning, and that the yield was as heavy as the ordinary short staple. No irrigation was required to grow the crop. It is expected that a considerable acreage of long staple cotton will be planted in the South Plains territory next season.

\$1,500,000 for Machinery to Increase Cement Output.

Plans are under consideration for increasing the output of the Gulf States Portland Cement Co., works at Spicari, Ala. George P. Dieckmann, Demopolis, Ala., vice-president and general manager, writes to the MANUFACTURERS RECORD: "Propose increase to 5000 barrels cement daily; estimated cost of machinery, \$1,500,000; present daily capacity, 1500 barrels."

MECHANICAL

New Heavy Duty Oil Engine.

An improved type of Hvid high compression ignition type oil engine which is attracting much attention because of its high degree of efficiency is shown in the accompanying illustration. The designer has adhered as closely as possible to the modern Diesel engine construction and has aimed to combine simplicity in operation with accessibility to reduce operating attention and operating cost. The design covers a cylinder unit of $8\frac{1}{2}$ inches bore by 12 inches stroke, which at 400 revolutions per minute develops 25 horse-power and is so arranged from a manufacturing

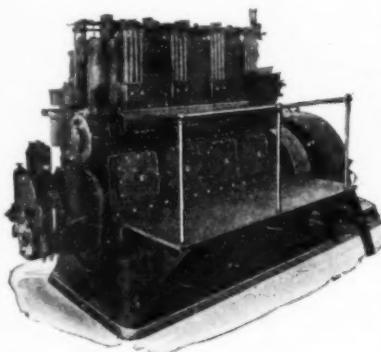
standpoint to admit of sufficient flexibility to include a wide range of sizes in units of from one cylinder to six cylinders for both marine and stationary service. The design is rugged in construction for heavy duty service to fully meet the demand of a well-balanced, quiet-running, simple, reliable and economical power.

The engine of any size, whether for marine or stationary service, is a simple, durable and self-contained, compact unit, taking up the least amount of engine-room space. Excellent shop facilities and the use of jigs and templates insure interchangeability of parts. The best available materials and workmanship enter into the construction and the manufacture of this heavy duty oil engine.

The lubricating system, which is completely automatic, provides for two grades of lubricating oil—one for the pistons and one for the bearings. The pistons are oiled by a force feed lubricator, no attendant being required, and the main bearings, crank and piston pins are at all times flooded with a copious stream of clean, cool oil by a plunger pump. After leaving the bearings the oil is collected, strained, filtered and cooled, after which it is again pumped back to the bearings. Starting the engine is accomplished by means of compressed air. The amount of fuel required is regulated by a governor. Independent of this there is a hand-control lever to slow down the engine when desired. An effective cooling system is accomplished by means of a water circulating plunger pump. The engine can be started, it is stated, from cold to full load in a few seconds and fuel consumption is guaranteed to not exceed six pounds per brake horse-power hour. There is complete combustion and therefore a smokeless exhaust.

The engine is designed to furnish power for machine shops, factories, cold storage plants, electric power plants, printing establishments, electric and power plants for municipal and industrial plants, wireless plants, oil fields, mining industries, railroads, etc. It is particularly adapted for direct drive, but is also furnished with outboard bearing and extended shaft for belt drive. In the marine field this engine will furnish power for cargo boats, sailing vessels, tugs, harbor lighterage boats, fishing boats, launches, emergency wireless plants, or as an engine-room auxiliary for electric light and power, etc. The manufacturers are the Pittsburgh Filter & Engineering Co., operating an extensive plant at Oil City, Pa., a large capacity of which is devoted to the manufacture of Hvid type motors and Diesel type oil engines.

In this connection it is interesting to note that Louis C. Eitzen is now associated with the company as vice-president and general sales manager of the Oil Engine Division, with offices at 280 Broadway, New York City. Mr. Eitzen was formerly general manager of the August Mietz Corporation of New York, manufacturers of oil engines.



THE NEW ENGINE READY FOR SERVICE.

A New Tote Box.

Tote boxes, used not only for carrying, but as receptacles for small parts, are comparable to workingmen today in the average factory. No factory has too many of them—and most factories need more at all times. With characteristic American ingenuity these necessary factory adjuncts are improved upon from time to time, but it has remained for The E. F. Hauserman Company of Cleveland to produce a new tote box of very unusual mechanical construction.

This new device not only embodies the advantages of being pinch-proof in handling, but assures perfect stacking at all times, due not only to the special form of hook in the handle, but to the method of construction, which is such that the top of each box cannot become misshapen. The upper edge of metal on the sides and ends is folded back on the under sides and welded, and the inside of the upper corners are reinforced with electric-welded plates of 14 gauge steel. The handles are large and broad—insuring easy handling—and no edges of metal are left above the handle to loosen up on the box proper and tear against the flesh through possible careless handling. Long life is also assured to the bottom of the box—with no sagging—as two heavy 1-inch strap steel runners are welded on the full length. This is particularly advantageous when loaded boxes are drawn along the floor. The new box has already received a warm welcome in many large plants.



METAL-REINFORCED TOTE BOX.

Smoke Duct on Locomotives.

The Cincinnati, New Orleans & Texas Pacific Railway of the Southern Railroad system has equipped some of its large locomotives with smoke ducts, the purpose of which is to convey smoke from the stack to the extreme rear of the locomotive cab while trains are passing through tunnels. In addition to this, there are suction fans provided to draw fresh air into the cab from the lower part of the tunnel. It is stated that on engines so equipped the crew can ride through the tunnels without even closing the cab windows. It is further noted that the smoke duct does not interfere with the steaming of locomotives. It is in closed position only about 12 minutes. The duct is made of heavy boiler iron, and is about four feet wide and one foot high, excepting where it connects with the smokestack, this connection being made by means of a movable hood, operated by compressed air.

Contemplated Railroad Extension.

At a recent meeting of the Chamber of Commerce at Monroe, La., a proposition proposing reorganization of the Arkansas-Louisiana Midland Railroad for the development of gas fields in Monroe and West Monroe, and in Ouchita parish, was unanimously endorsed. The idea is to purchase the line and to extend its facilities to meet requirements. Two committees were appointed to consider the plan and make report. Among those interested are P. E. Flournoy, Sam. Kaplan, E. N. Florsheim, R. Downes, Jr., T. H. McHenry, W. L. Ethridge, H. J. Fernandez and others.

New Equipment.

It is reported that the Virginia Railway & Power Co. will spend about \$1,130,000 for equipment and other improvements at Norfolk. T. S. Wheelwright, Richmond, Va., is president of the company.

The Rock Island Lines are reported in the market for 50 new locomotives, and the Seaboard Air Line is reported contemplating the purchase of 5 baggage and mail cars and 2 postal cars.

The Mid-Co. Gasoline Co., Tulsa, Okla., is reported to have ordered 10 tank cars from the Pennsylvania Tank Car Co., and John R. Walsh of Savannah, Ga., 3 cars from the same concern.

FOREIGN NEEDS

[The MANUFACTURERS RECORD receives many letters from abroad asking for information about American goods, and others, from men who wish to represent American houses. Without assuming any responsibility for these concerns, we publish a summary of the foreign letters of inquiry from week to week.]

Cotton Gin—Starch-Extracting Machine.

A. GRANT, Manager Liga Agricola de Aguadilla, Aguadilla, Porto Rico.—We will need a sea-island cotton gin (long staple cotton gin); also a machine for extracting almidon de Yuca, that is to say, starch.

Vinegar-Making Machinery.

HENRY H. CLARKE, Whimble Rectory, Exeter, England.—I wish to obtain the name and address of a manufacturer of machinery to make vinegar, or a "vinegar plant," as I understand they are made in the United States.

Automobiles, Trucks, Tractors, Etc.

SVEN DU RIETZ, INC., Norrkoping, Sweden, and 25 Broad Street, New York.—We are in the market for automobiles, motor trucks, tractors, and also automobile accessories. We are also in the market for raw materials for textile manufacture.

Extracts—Palm Oil.

R. AMIEL, G. N. Spillotopoulos & Company, 36 Rue du Colisee, Paris, France.—We would be obliged if given the names and addresses of the most important firms of the United States who can supply us with: Chestnut extract, extract of quebracho, mimosa extract and palm oil.

Hardware, Automobiles, Specialties.

GENERAL AGENCIES CO., 322 Donald St., Winnipeg, Manitoba.—We are manufacturers' agents, handling specialties, and are interested in hardware and automobile lines. We should like to get in touch with some specialty manufacturers to act as their selling agents in Western Canada.

Paper, Oils, Raincoats, Hardware, Etc.

F. M. & A. PETITJEAN, Sao Paulo, Brazil.—We can be interested in any kind of American product, acting as representatives on a commission basis. For the present, however, we are specially interested in the following lines: Paper, lubricating oils, raincoats, hardware, tools, barbed wire, etc.

Cotton Goods, Foods, Hardware, Autos, Etc.

BERT, LARA & CIA, Maracaibo, Venezuela.—We are interested in representing manufacturers of the following articles: Cotton-piece goods, food products, hardware, automobiles, motorcycles, typewriters, etc., caustic soda, disinfectants, etc. Would like to hear from manufacturers. Correspondence in Spanish suggested.

Box-Making Machinery, Etc.

FRANCISCO AUGUET, Progreso, No. 20, Gerona, Spain.—Wishing to establish a manufacturing house for wooden boxes, I wish to be put in touch with manufacturers of machinery for this purpose. I am especially interested in sewing machines—that is, those that will sew with wire. Also machines for driving nails. Correspondence in Spanish suggested.

Electrical Supplies, Iron and Steel, Etc.

ASCOG METAL PRODUCTS (GLASGOW), LTD., 24 W. Heath Drive, Hapstead, London, N. W. 3, England.—We are interested in everything that spells electrical merchandise and iron and steel raw material, tools, and machinery and coal. We desire agencies in our line, preferably purchasing agencies, we to pay cash on shipment or otherwise as may be arranged.

Fireproof Materials, Etc.

INGENJÖR A. HERMANSEN, Storgatan 12, Växjö, Sweden.—We are in the market for all kinds of fireproof material, fireproof bricks, crucibles, glass-blowing machines and material for the making of glass, charging cranes and devices for handling of brass and iron in the furnaces and to the furnaces, portable electric furnaces, etc. We require the goods not only for Sweden, but for the whole of Scandinavia, as we have our own offices also in other countries. Some materials could even be re-exported. Quotation should be made f. o. b. New York or other port; if possible, we would prefer c. i. f. Gothenburg. The demand for American goods is still good, but if you want to get a really good hold of the market it is essential to have an American selling organization with samples here on the spot. Three or four travelers (speaking Swedish) would do much to further trade.

Collars, Shirts, Ties, Pipes, Etc.

C. L. RESTRUP, Christiania, Norway.—As commission agent I would like to represent American manufacturers in the following lines: Collars, shirts, ties, mufflers, rubber combs, rubber balls, braces and suspenders, shoe laces, tobacco pipes, bruyere, handkerchiefs, printed and white, etc. All the goods in the dry goods line have my interest, and I desire to be put in connection with only manufacturers of the foregoing lines.

Paraffine.

BENISSIAN & SIDES, Salonica, Greece.—We have important orders for paraffine, 120 white and yellow, in double sacks of 2 cwt., delivery at Salonica (shipper taking the risks of war), payment (net) of the amount, with 5 per cent discount for opening an irrevocable credit with a good bank of New York against documents. Therefore, we will be greatly obliged to you if some responsible American manufacturer would take up the matter with us immediately, forwarding an offer with samples, in order that we may procure from him the supplies in question. Correspondence in French suggested.

Toilet Articles, Brushes, Office Supplies, Etc.

JEAN ARMAND MASSE, Canuda, 2, Barcelona, Spain.—I am anxious to represent American firms manufacturing the following: Toilet articles, fine tooth brushes, nail brushes, hair brushes, hat brushes, clothing brushes and all other kinds of toilet articles, religious articles, office and school supplies, paints and colors for school use, and all articles belonging to the following businesses: Toilet, perfumery, office, small hardware, toys and drugs. I am now representing some houses manufacturing certain kinds of the above products. Correspondence in French suggested.

Cotton and Other Textiles.

S. M. LACOUTURE, Apartado Num. 1929, Mexico City, Mexico.—I would like to have the names of some manufacturers (not jobbers) of denims, indigo drills and colored cotton drills. I want to represent them, and will furnish them with any information they may desire. I have been in business for some years and have sold a great quantity of goods. Of the above textiles alone I have sold over 50,000 pzas. I am an expert in textiles and control the best trade of the country. I sell them great quantities of goods, and do not grant them long terms, as is customary with most manufacturers' agents. Correspondence in Spanish suggested.

American Products Wanted.

OVERELL & SAMPSON PTY., LTD. (J. B. OVERELL), 312 Flinder St., Melbourne, Australia.—My interest in American products is due to the fact that I have a sales organization covering the whole of Australia, through which these various products are sold on behalf of overseas manufacturers. My efforts are to secure the exclusive representation of principals of this class. Samples and prices, either mailed or cabled, are supplied, and through our various offices and salesrooms we thoroughly canvass the market, making contract of sale between our principals and the buyers, giving both parties all service necessary for the maintenance of export and import business.

Hardware, Chemicals, Leather and Rubber Goods.

JOHN MUGUERZA, 108 W. 61st St., New York City.—I am representative and partner of the firm of Llobell & Muguerza Hfios, Valencia, Spain. This company worked before under Mr. F. Llobell for a period of 12 years, but lately my brother, who is in Spain, and I ingressed in this company in order to increase our business with this country. We are exporters of Spanish products, such as dried fruits and olive oil, and importers on a commission basis of American products. We are interested in securing the selling agency of American firms of hardware, chemicals, leather and rubber goods, and my sojourn here (which will be temporary) is intended to make the necessary connections with manufacturers of the above articles.

Smokers' Specialties.

DITTA, DONATI & SPIZZIRRI (DI G. DONATI), Via Zecca Vecchia, 6, Milan, Italy.—Business conditions here are very good; that is to say, the demand for manufactured goods is great. Unfortunately, the exchange is, at the date of this writing, almost prohibitive, handicapping importation from the United States. We used to receive before the war goods from Germany and Austria, but we would gladly now start some connection with American firms, as we are doing already with English firms. We would like to secure a general agency for American firms for the whole Italy, as we have salesmen traveling the whole country and we have good connections in business. We should be willing to receive goods on consignment. Our specialty is smokers' sundries, and an offer from a manufacturer of tobacco rubber pouches would be welcomed. Correspondence in English.

Construction Department

EXPLANATORY.

The MANUFACTURERS RECORD seeks to verify and obtain additional information regarding all enterprises reported in its Construction Department, by direct daily correspondence. Further facts of news value are published later from telegraph, mail and representatives' reports. We appreciate having our attention called to errors that may occur.

DAILY BULLETIN.

The Daily Bulletin of the MANUFACTURERS RECORD is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

Airplane Plants, Stations, Etc.

Fla., Fort Myers—Airplanes.—Fort Myers Flying Corp. chartered; capital \$50,000; M. R. Kellum, Pres.; R. C. Page, V.-P.; Walter O. Sheppard, Secy.-Treas.

Fla., Orlando—Airplanes.—Orlando Aerial Co. Incpd.; capital \$25,000; E. G. Duckworth, Pres.; J. P. Holbrook, Secy.-Treas.

Tex., San Antonio—Hangar.—War Dept., Construction Div., John G. Thornell, Commander; erect \$325,000 fabricated-steel hangar at Brooke Field; 270x125x100 ft.; construct sectionally on concrete piers.

Bridges, Culverts and Viaducts.

Fla., Cortez—Manatee County River, Bay and Gulf Special Road and Bridge Dist., Bradenton, Fla.; construct bridge across Sarasota Bay; wood pile with steel draw; 50-ft. opening; \$23,379; J. R. Chambliss, Contr., 213 E. Oak Ave., Tampa, Fla.; Richard M. Carty, Engr., Sarasota, Fla.

Ga., Altamaha.—Savannah, Altamaha Bridge Co., Mills B. Lane, Prest.; construct steel drawbridge across Altamaha River at Upper Sisters Ferry; steel spans 116 ft. long; draw steel span 22 ft. long; 4100 ft. of trestle; \$150,000; Beasley Contracting Co., Contr., Savannah, Ga.

La., Colfax.—Grant Parish Police Jury; construct bridges and roads in Dist. No. 9; voted \$600,000 bonds.

Tex., San Angelo.—Tom Green County Commissioners; construct bridges and culverts; \$62,393.23; McCall-Moore Engineering Co., Contr., Waco, Tex.; J. E. Beavers, Engr., San Angelo, Tex.

Canning and Packing Plants.

Ala., Andalusia.—Price-Booker Co.; capital \$100,000; build sweet potato and berry cannery; enlarge pickle plant.

Ga., Nashville.—Farmers' Packing Co. organized; W. G. Eager, Prest.-Mgr.; J. J. Newman, Treas.; all Valdosta, Ga.; construct 35x50x26-ft. fireproof building; \$20,000; machinery ordered; monthly output 150,000 lbs. packing-house products; W. G. Eager, Archt.-Constr. Engr.

La., De Ridder.—Chamber of Commerce, J. C. Fowler, Secy.-Mgr.; interested in plans to establish cannery. (See *Machinery Wanted—Canning Machinery*.)

Tex., Lindale.—Star Canning Co. organized; capital \$20,000; J. L. Braziel, Prest.; L. W. Pierce, Secy.-Treas.-Mgr.; construct 100x60-ft. building; \$20,000; bids opened March 1; daily output 75,000 cans fruits and vegetables; Kay Whisenhunt, Archt. (Lately noted Incpd.)

Clayworking Plants.

Fla., Columbus—Bricks.—Columbus Brick & Tile Co.; Telfair Stockton, Prest., Jacksonville, Fla.; acquired plant; install \$100,000 improvements; increase daily capacity to 125,000 bricks; install machinery to manufacture interlocking tile; daily output 150 tons; C. H. Carpenter, Chief Engr., Jacksonville.

Va., Soroco—Bricks.—Adams, Payne & Hall, 709 Main St., Lynchburg, Va., organized; J. Ellis Hall, Prest., Box 132, Lynchburg; E. C. Deacon, Mgr., Box 85, Suffolk; acquired Soroco Brick Yards; contemplate increasing output and kiln capacity; daily output 30,000 building bricks. (See *Machinery Wanted—Steam Shovel*.)

Coal Mines and Coke Ovens.

Ky., Drakesboro.—Black Diamond Coal & Mining Co., W. W. Bridges, Mgr.; rebuild burned plant; reported loss \$20,000.

Ky., Glenn.—Federal Coal Co.; increased capital from \$10,000 to \$25,000.

Ky., Harlan.—Harlan By-Products Coal Co. Incpd.; capital \$22,000; J. F. and A. L. White, W. B. Landrum.

Ky., Williamsburg.—High Splint Coal Co.; increased capital from \$30,000 to \$40,000.

Mo., Fayette.—B. N. Tanner; develop coal land in Howard County, 5 mi. southwest of Fayette.

W. Va., Boomer.—West Virginia Eagle Coal Co. organized; Wm. G. Conley, Prest., Charleston, W. Va.; L. S. Tulley, V.-P., Mt. Hope, W. Va.; Edgar Charlton, Secy.; J. H. Charlton, Treas.-Mgr.; both Boomer; develop 1200 acres; drift mine; contemplates yearly output 200,000 tons. (Lately noted Incpd., capital \$100,000.)

W. Va., Boomer.—West Virginia Eagle Coal Co., 1101 Union Bldg., Charleston, W. Va., organized; Wm. G. Conley, Prest., Charleston, W. Va.; L. S. Tulley, V.-P., Mt. Hope, W. Va.; J. E. Charlton, Treas.-Mgr., Boomer, W. Va.; develop 1214 acres; daily output 1000 tons; install steel monitors, electric motors, mine machines, etc.; N. P. Rinchart, Const. Engr., Mt. Hope, W. Va. (Lately noted Incpd., capital \$100,000.)

W. Va., Faulkner.—Faulkner Coal Co., Huntington, W. Va., Incpd.; capital \$100,000; W. E. Deegan, G. E. Scholl, J. Frank Grimes.

W. Va., Reynoldsville.—Marbellie Coal Mining Co., New York, Incpd.; capital \$100,000; F. R. Long, Montclair, N. J.; Carl H. Hornor, Philip P. Steptoe; both Clarksburg, W. Va.

W. Va., Swiss.—Kanawha Collieries Co.; improve plant; increasing capacity; contemplates daily output 400 tons.

W. Va., Tallmansville.—Greenbriar Coal Co., Elkins, W. Va., organized; W. H. Green, Prest.; J. F. Brown, Secy.; both Elkins, J.

C. Green, Mgr., Tallmansville; develop 375 acres; daily output one car. (Lately noted Incpd., capital \$50,000.)

W. Va., Mingo County.—Sprigg Coal Co., Huntington, W. Va., Incpd.; capital \$50,000; J. C. Miller, Charles S. Porter, William J. Harare.

Concrete and Cement Plants.

Ala., Birmingham—Portland Cement.—Coosa Cement Co. Incpd.; capital \$1000; V. O. Barnard, J. D. Ricker.

Cotton Compreses and Gins.

Ky., Hickman.—C. T. Bonduant; construct fireproof gin building; install machinery to ginn, stand gin; hullers, cleaners, etc.

Miss., Clarksdale.—C. O. Pixley; rebuild burned \$5000 cotton gin.

Tex., Cleburne.—James G. Taylor; rebuild burned cotton gin.

N. C., Oakboro.—Furr & Barbee; erect \$2000 cotton gin and lumber plant; install cotton gin, lumber and finishing machinery; \$4000. Lately noted to rebuild burned plant. (See *Machinery Wanted—Cotton Gin; Lumber Finishing Machinery*.)

Tex., Brenham.—Farmers' Union Co-operative Gin Co. Incpd.; capital \$16,000; Wm. Rogge, L. F. Winkelmann, A. J. Lehman.

Tex., Eden.—L. A. Legg Gin & Mill Co.; rebuild burned plant.

Tex., Fabens.—A. Lemley, El Paso, Tex.; organize company; capital \$100,000; contemplates erection ginnery, cottonseed-oil mill and flour mill.

Tex., Needville.—Needville Gin & Light Co. Incpd.; capital \$45,000; Edward Risinger, Henry Banker, M. B. Cloud.

Cottonseed-Oil Mills.

Tex., Abilene.—Continental Oil & Cotton Co.; rebuild burned \$250,000 plant.

Tex., Eden.—L. A. Legg Gin & Mill Co.; rebuild burned plant.

Tex., Fabens.—A. Lemley, El Paso, Tex.; organize company; capital \$100,000; contemplates erection cottonseed-oil mill, flour mill and ginnery.

Tex., Wichita Falls.—Wichita Falls Cotton Oil Co. Incpd.; capital \$150,000; Frank Kell, Wichita Falls; J. E. Wolf, Charlie, Tex.; F. B. Pope, McKinney, Tex.

Drainage Systems.

Ind., Madison.—Sugar Creek Drainage Dist., D. F. Perry, Chmn.; construct 14 mi. main ditch and 14 mi. 3 lateral ditches; 47,402 cu. yds. earth excavation; 893 cu. yds. rock excavation; bids until Dec. 12; J. F. Carey, Surveyor. Supersedes recent item. (See *Machinery Wanted—Drainage Ditches*.)

Electric Plants.

N.J., Long Island.—Church of Jehovah, J. A. Corbell, Supt.; instal electric-light plant. (See *Machinery Wanted—Electrical Equipment*.)

Ala., Tuskegee.—Tuskegee Light & Power Co. Incpd.; capital \$30,000; D. E. Laslie; operate electric-light and power plant and ice factory.

Ark., Fort Smith.—Fort Smith Light & Traction Co.; construct \$250,000 plant addition; reported.

Ky., Fordsville.—Fordsville Light & Power Co. inceptd.; capital \$4000; J. B. Westerfield, Fount Crowe, J. T. Smith.

Ky., Germantown.—Mason-Bracken Electric Co. organized; H. L. Corlis, Prest.; provide electric light and power for Brooksville.

Okla., Dewar.—Dewar Electric Co.; has franchise for electric-light plant for town and coal mines.

Okla., Nowata.—City; improve electric-light and power plant; vote Dec. 2 on \$148,340 bonds; Burns & McDonnell, Engrs. Interstate Bldg., Kansas City, Mo. (Supersedes recent item.)

Okla., Tahlequah.—City; install electric-light plant; \$100,000 bonds. Address The Mayor.

Okla., Wynona.—Wynona Light, Power & Water Co. inceptd.; capital \$50,000; Frank Watson, Wynona; Wm. Watson, Lometa, Tex.; F. M. Overless, Bartlesville, Okla.

S. C., Summerville.—Comr. of Public Works; install electric-light plant; \$40,000 bonds.

Tex., Needville.—Needville Gin & Light Co. inceptd.; capital \$45,000; Edward Risinger, Henry Banker, M. E. Cloud.

W. Va., Janelow.—Burton M. Davission; contemplates installing lighting and water system.

Va., Weyer's Cave.—Weyer's Cave Light & Power Co.; increased capital from \$5000 to \$10,000.

Fertilizer Factories.

Ala., Fort Payne.—Alabama Lime Works, J. J. Farnsworth, Prest.-Mgr.; construct \$20,000 lime plant of 4 kilns; 50x120-ft. galvanized iron building; day labor; install air drills, compressors, gasoline engine for cars; daily capacity 45 tons lime. Supersedes recent item. (See Machinery Wanted—Drills; Compressors; Locomotive; Steel Jackets; Cars; Hoist.)

Miss., Waynesboro.—State of Mississippi; increase capacity to daily output 2 carloads.

N. C., Henderson.—Union Seed & Fertilizer Co.; rebuild burned \$300,000 plant.

S. C., Sumter.—Sumter Fertilizer Mfg. Co. organized; capital \$50,000; Geo. D. Shore, Prest.; A. E. Tisdale, Treas.-Mgr.; A. F. Stelling, Supt.; establish 20,000-ton capacity plant; mfr. fertilizer for cotton and tobacco.

Flour, Feed and Meal Mills.

Ala., Long Island.—Church of Jehovah, J. A. Corbell, Supt.; erect grist mill; install feed grinder, etc. (See Machinery Wanted—Grist-mill Equipment.)

Ala., Tuscaloosa.—Wm. A. Adams, Clanton, Ala.; construct feed plant. (Lately noted contemplated.)

Ky., Frankfort.—Frankfort Grain Products Co. inceptd.; capital \$100,000; J. P. Williams, W. J. Gorman, H. R. Rodman.

Tenn., Covington.—Covington Milling Co., B. B. Boyd, Secy.-Treas.-Mgr.; has building; install crusher and pulverizer; daily output 40 tons mixed sweet feed; C. B. Thornburg, Archt.-Engr.-Contr., Dyersburg, Tenn. (Supersedes previous item under Miscellaneous Factories.)

Tex., Fabens.—A Lemley, El Paso, Tex.; organize company; capital \$100,000; contemplates erection flour mill, ginnery and cottonseed-oil mill.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Va., Orange.—Orange Milling Co., H. C. Warren, Secy.-Treas.; contemplates installing 250 H. P. electrical unit, generated by steam, oil or gas. (See Machinery Wanted—Electrical Unit.)

Foundry and Machine Plants.

Ala., Bessemer—Soil Pipe.—C. J. Donald; organize \$150,000 company; manufacture soil pipe.

Ala., Gadsden—Pipe.—Gadsden Pipe Co., N. 9th St.; enlarge plant; increase capacity; install 90-in.-diam. cupola and No. 7 blower driven by 75 H. P. electric motor; erect additional casting shed, 25x500 ft.

Fla., Miami.—Auto Air Brakes.—Clyde J. Merny; plans erection plant; manufacture auto air brakes.

Ga., Athens.—Implements.—Agricultural Implement Co. inceptd.; capital \$50,000; W. H. Chafin, P. S. Johnson, C. N. Hodgeson.

Ga., Rome.—Machinery.—Griffin Foundry & Mfg. Co., M. N. Griffin, Prest.; erect foundry addition, 80x80 ft.; contract let; machinery purchased.

La., Lake Charles.—Machinery.—Lake Charles Machine Shop Co. inceptd.; capital \$10,000; John Springer, Prest., Pascagoula, Miss.; G. A. Bain, V.-P., Lake Charles, La.; E. V. Springer, Treas., Tulsa, Okla.

Md., Baltimore.—Spikes.—American Spike Co.; construct plant; reported; James Stewart & Co., Contrs., 30 Church St., New York.

Md., Security.—Spikes.—American Spike Co.; erect branch plant; reported; James Stewart & Co., Contrs., 30 Church St., New York.

Mo., Kansas City.—Road Machinery and Culverts.—Russell Grader Mfg. Co., Minneapolis, Minn.; C. O. Wood, Secy.; erect 1-story 100x12-ft. brick building; branch office, assembling plant; limited manufacturing. (Supersedes recent item.)

Mo., Kansas City.—Electrotype Foundry.—Central Electrotype Co., Charles L. Smack, Prest.; erect \$100,000 plant; concrete, brick and terra-cotta construction; marble entrance; 80x84-ft. site; A. H. Buckley, Archt.; George M. Blise Construction Co., Contr.

Mo., St. Louis.—Locks.—Liberty Auto Lock Co., 2229 Pine St., organized; E. W. Link, Prest.; John L. Malone, V.-P.; Joseph Goodrich, Secy.; Oscar Bergman, Treas.; A. W. Sagerer, Mgr.; contract with foundry to mfr. automobile wheel lock, automatic ignition lock; later erect foundry, machine and paint shop.

Ola., Oklahoma City.—Acetylene Generators. Sure-Pressure Acetylene Generator Co.; increased capital from \$25,000 to \$50,000.

Tenn., Chattanooga.—Gray and Malleable Iron.—Ross-Meehan Foundries; 1-story plant addition; concrete construction; \$28,000.

Tex., Eastland.—Tools.—Howard Tool Works inceptd.; capital \$5,000; D. M. Howard, P. S. Wolfe, H. L. Durlin.

W. Va., Charleston.—Armature Work.—American Armature Engineering Co. inceptd.; capital \$25,000; G. E. Stupalsky, A. A. Grant, A. D. Knight; all Bluefield, W. Va.

Gas and Oil Enterprises.

Ky., Frenchburg.—Prosperity Oil & Gas Co. inceptd.; capital \$60,000; Jno. C. Sebald, Emil Denisi, Philip Rizzo.

La., Shreveport.—Production Oil Co. inceptd.; capital \$100,000; J. E. Crusel, V. E. Howze, J. H. King.

La., Shreveport.—Bull Bayou Mystic Oil Co. inceptd.; capital \$200,000; H. L. Mobley, Prest.; Lois B. Higman, Secy.-Treas.

La., Shreveport.—Filling Station.—Louisiana Oil Refining Corp., E. R. Ratcliff, Prest.; erect 60x83-ft. stucco partly fireproof building; \$8,000; install 9 gasoline and 6 oil pumps, tanks, etc.; J. P. Annan, Archt., Shreveport; W. P. Berry, Contr., Lufkin, Tex.

La., Shreveport.—Edw. L. Doheny, Franklin K. Lane, Jr.; both New York; J. C. Anderson, J. M. Danziger; both Shreveport; contemplate \$2,000,000 expenditure to exploit oil fields, drill test wells, lay piping, etc.; organize developing companies on basis of results exploitation.

La., Shreveport.—73 Oil Corp. chartered; capital \$50,000; A. Rioux, Prest.-Treas.; H. Matthews, Secy.

Okla., Ardmore.—Refinery.—Arbuckle Refining Co. inceptd.; capital \$500,000; T. F. Caldwell, E. A. Hawley; both Ardmore; W. J. Goodwin, Wichita Falls, Tex.

Okla., Bartlesville.—M. & O. Oil & Gas Co. inceptd.; capital \$150,000; Jack D. Robinson, Bartlesville; Geo. E. Dieckman, Harry W. Haussler, both St. Louis, Mo.

Okla., Caddo.—Caddo Oil Development Co. inceptd.; J. A. Moore, J. H. McCalman, N. G. Huffman.

Okla., Blackwell.—Profit Oil & Gas Co. inceptd.; capital \$500,000; W. T. Rucker, W. J. Newsom, Roy W. Cox.

Okla., Henryetta.—Kinta Oil Co. inceptd.; capital \$7000; Jas. McGennis, Henryetta; H. D. Buchanan, W. C. Perry; both Kansas City, Mo.

Okla., Lawton.—Rock Island Petroleum Co. inceptd.; capital \$500,000; D. H. Berry, Lawton; C. P. Hale, Wichita, Kans.; S. W. Spangler, Guthrie, Okla.

Okla., Muskogee.—Arbutus Oil Co. inceptd.; capital \$5000; F. L. Beam, W. H. Pritchett, G. D. Rogers.

Okla., Oklahoma City.—Trapezoid Oil & Gas Co. inceptd.; capital \$100,000; J. P. Whatley, C. W. Hughes, J. N. Dyer.

Okla., Sand Springs.—Western States Petroleum Co. inceptd.; capital \$30,000; Chas. H. Loretz, W. A. Watson, both Sand Springs; A. Jenkins, Tulsa.

Okla., Tulsa.—Mayne-Jean Oil & Gas Co. inceptd.; capital \$10,000; Byron and Gertrude Kirkpatrick, O. C. Smith.

Okla., Tulsa.—Central Oil & Gas Co. inceptd.; capital \$150,000; Morris Cahill, Albert H. Bell, Ray S. Follows.

S. C., McCormick.—Savannah Valley Oil Co. inceptd.; capital \$15,000; J. E. Britt, W. O. Graves, Jr.

Tex., Beaumont.—Dunlap-Delaney Oil Co. inceptd.; capital \$75,000; W. P. Dunlap, Ward Delaney, Kinch Hillier.

Tex., Dallas.—Perfection Oil Co. inceptd.; capital \$25,000; S. S. Hopkins, C. D. Cain, Ewing Howell.

Tex., Fort Worth.—Mesquit Oil Co. inceptd.; capital \$125,000; J. W. Barnes, Grant Waggoner, H. E. Huttig.

Tex., Fort Worth.—Refinery.—Texas Eagle Producing & Refining Co., Frederick Cook, Prest., 63½ Main St.; erect 10,000-bbl. refinery; construct 1½-mi. 4-in. pipe; install machinery, stills, boilers, etc.; E. E. Peacock, Mgr.-Director of Refineries; Lou M. Louis, Contr. Engr. Supersedes recent item. (See Machinery Wanted—Oil Refinery Equipment.)

Tex., Henderson.—Caledonia Oil Co. inceptd.; capital \$70,000; C. J. Greene, A. H. Sanders, M. H. Shook.

Tex., Houston.—Refinery.—Monarch Oil & Refining Co. inceptd.; capital \$2,000,000; Edmund Raphael, J. F. White, R. L. Young.

Tex., etc.—W. 600 etc.; J. St. N. We ha ton to fields; bbls. c pumping station direct providing unit b 40x60-ft. station tanks. Tex., Jones \$350,000 capac Tex., Co. org. L. V. inceptd. W. V. inceptd. W. V. inceptd. M. Z. V. Ala., Water invest pacity; mission of Alab near V. west of Prattv Co., Bl Henry Engrs.,

Le Ala., Co. in operate power

La., Meysen tions; water i

Mo., Co., Ba double

N. C., purcas plant;

Okla., Co., T. increase building ton ref machine water i

Wanted

Okla., Brooks, pump s

Okla., Co., El building

Tex., Ranger—Pipe Lines, Pumping Stations, etc.—White Oil Corp., Houston; invest \$5,000,000 for pipe lines, pumping stations, tanks, etc.; J. G. White Engineering Corp., 37 Wall St., New York, advises Manufacturers Record: We have contract for 225-mi. pipe line; Houston to Ranger, Desdemona and adjacent oil fields; 8-in. 29-lb. pipe; 24-hour capacity 20,000 bbls., crude oil; 700 lbs. per sq. in. pressure; pumping stations at 40-mi. intervals; each station to have three 10,000-bbl. per day pumps direct driven by 3 Diesel oil engines; 2 units providing line capacity of 20,000 bbls.; third unit being reserved; install spare unit; 115x40x60-ft. reinforced concrete building for each station; two 37,500-bbl. capacity steel storage tanks, crane and cottages at each station; preliminary estimate \$5,000,000.

Tex., San Antonio—Refinery.—Elliott, Jones & Co., Elliott Jones, Prest.; build \$500,000 refinery; 4 continuous stills; initial capacity 4000 bbls.

Tex., Sherman—Grayson County Oil & Gas Co., organized; capital \$5,000,000; J. S. Carter, L. F. Bland, Frank P. Nigro; all Dallas, Tex.

W. Va., Buckhannon—Elliott Oil & Gas Co., inceptd.; capital \$125,000; V. S. Lynch, Buckhannon; Frank A. Brazie, R. Lime, Charles-ton, W. Va.

W. Va., Clarksburg—Canton Oil & Gas Co., inceptd.; capital \$50,000; Jno. Flint, H. H. Weekly, N. E. White.

W. Va., Morgantown—Tayes Oil & Gas Co., inceptd.; capital \$100,000; J. L. Keener, Stephen Davis, C. C. Brown.

W. Va., Williamson—National Oil & Gas Co., inceptd.; capital \$50,000; Edward R. Jubling, M. Z. White, Harry Scherr.

Hydro-Electric Plants.

Ala., Montgomery.—Montgomery Light & Water Power Co., S. B. Ireland, Gen. Mgr.; invest \$500,000 for additions; double plant capacity; construct 44,000-volt high-tension transmission line to connect with 44,000-volt line of Alabama Power Co. at intersection point, near Vida, on Mobile & Ohio Ry., 25 mi. northwest of Montgomery; probably extend line to Prattville; contracted with Alabama Power Co., Birmingham, for several thousand H. P. Henry L. Doherty & Co., Gen. Mgrs. and Engrs., New York.

Ice and Cold-Storage Plants.

Ala., Tuskegee.—Tuskegee Light & Power Co., inceptd.; capital \$30,000; D. E. Laslie; operate ice factory and electric-light and power plant.

La., New Orleans—Panama Ice Co., Fred Meyenburg, Mgr.; lately noted to erect additions; change from distilled water to raw water ice making; has machinery.

Mo., Marionville—Marionville Cold Storage Co., B. R. Coleman; erect plant addition; double capacity; J. L. Heckenlively, Archt.

N. C., Rutherfordton—Citizens' Mfg. Co.; purchased established ice and woodworking plant; will enlarge.

Okla., Hominy—Hominy Cotton Oil & Ice Co., T. J. Thomas, Mgr.; lately noted to increase plant's capacity; erect 80x130x25-ft. building; ordinary construction; install 12-ton refrigerating machine or 6-ton ice-making machinery; daily capacity 20 tons distilled water ice, 3000-ton storage. (See Machinery Wanted—Ice Machinery.)

Okla., Cordell—Cordell Ice Plant, L. E. Brooks, Mgr.; erect 40x50-ft. icehouse; \$6000; material purchased; install brine piping, pump and fitting. (Supersedes recent item.)

Okla., Okmulgee—Okmulgee Ice & Light Co., Elmer W. Smith, Mgr.; erect fireproof building; install 50-ton freezing tank; 100-

ton ice-making plant; compressor and auxiliaries; purchased; daily output 100 tons.

S. C., Burton—Burton Ice & Mfg. Co. incorporated; capital \$50,000; William Kayserling, Prest.; H. K. Lea, V.-P.; E. L. Allen, Mgr.

Tex., Goose Creek.—Goose Creek Ice Co., inceptd.; capital \$40,000; S. A. Spencer, W. O. Cornish, J. C. Harris.

Va., Bristol.—Bristol Ice Cream Co., 420 Scott St.; erect ice plant and addition to creamery; 80x80 ft.; brick and concrete construction; composition roofing; concrete floor; \$10,000; steam heat; electric lighting; install two 30 and one 10-ton ice machines; 20-ton tank; 4 ice-cream hardening rooms; 200-ton ice-storage room; Creamery Package Mfg. Co., Contr., Chicago.

Va., Portsmouth—Wainwright Ayers; erect 1-story building; \$10,000; R. K. Revell, Contr., 1040 Ann St.

Iron and Steel Plants.

Ala., Gadsden—Steel Wire Mill.—Gulf States Steel Co., James Bowron, Prest., Birmingham; increase output from 25 to 50 per cent; extend drawing-room, 350 long 60 ft. wide; install 2-wire drawing tables; contract let; construction of building by company, except steel forms and cement work, which may be contracted for; total cost \$200,000.

Land Developments.

Fla., Avon Park—Citrus Groves & By-Products Co., inceptd.; capital \$350,000; C. P. Anderson, Pres.; C. P. Durrance, 2d V.-P. and Gen. Mgr.; A. V. Anderson, Secy.

Fla., Avon Park—Florida Citrus Development Co., inceptd.; capital \$200,000; F. L. Davis Wolhaupter, Prest.; C. P. Anderson, 2d V.-P. and Gen. Mgr.; T. J. Baus, Secy.; L. T. Brehm, Treas.

Fla., Lake Hamilton—Florida Ridge Land & Development Co., inceptd.; capital \$10,000; Chas. H. Paschall, Prest.; Earl C. Smeltzer, V.-P. Gen. Mgr.

S. C., Columbia—Mutual Development Co., inceptd.; capital \$10,000; Wm. P. Etchison, J. F. Bailey.

Tex., Houston—Southern Orchard Co., inceptd.; capital \$30,000; S. Arai, T. H. Stone, Lewis Fogle.

W. Va., Montgomery—Montgomery Land Co., inceptd.; capital \$45,000; O. P. Fitzgerald, B. B. Brown, A. W. McDonald; all Charleston, W. Va.

Lumber Manufacturing.

Ala., Seale—Doggett Lumber Co., inceptd.; capital \$150,000.

Ala., Vredenburgh—Vredenburgh Saw Mill Co.; erect additional unit to plant; single bandmill.

Ark., Batesville—Batesville Hardwood Lumber Co., inceptd.; capital \$5000.

Fla., Crestview—R. E. L. McCaskill; erect sawmill; purchased 67,000 acres timber.

Fla., Jacksonville—Georgia-Florida Pine Co., inceptd.; capital \$100,000; T. M. Griffin, Prest. Treas.; J. W. Pearson, Secy.

Fla., Ormond—Flomich Lumber Co.; erect sawmill; install two 40 H. P. steam engines, 125 H. P. boiler, 2 circular saws, planer with accessories; purchased.

Ga., Dublin—Dublin Lumber Co.; rebuild burned plant; reported loss \$15,000.

Ga., Talbotton—Hampton Lumber Co., incorporated; capital \$100,000; R. L. Hampton, Mgr., Rutherfordton, N. C.; install boiler,

engine, planer; daily capacity 50,000 ft. (See Machinery Wanted—Boiler; Engine; Planer.)

La., Alexandria—Geo. C. Vaughn & Sons Incpd.; capital \$100,000; T. T. Pharis, Alexander; R. M. Middlebrook, San Antonio, Tex.; R. F. Vaughn, Eagle Pass, Tex.

La., Homer—J. J. Moore & Sons; erect saw and planing mill; machinery purchased; manufacture Southern pine.

Miss., Brookhaven—Lincoln County Lumber Co., Incpd.; capital \$30,000; J. F. Vernon, J. W. Cassedy.

Miss., Georgetown—John A. Pringle; rebuild burned mill.

Miss., Vicksburg—Lamb-Gary Lumber Co.; rebuild burned plant; reported loss \$8000.

N. C., Mooresville—P. M. Barger Lumber Co., organized; James L. Donald, Secy. Treas.

N. C., Oakboro—Furr & Barbee; erect \$2000 lumber plant and ginnery; install lumber-finishing machinery, cotton gin; \$4000. Lately noted to rebuild burned plant. (See Machinery Wanted—Lumber-finishing Machinery; Cotton Gin.)

Okl., Oklahoma City—Tibbs & Dorsey Mfg. Co., 1006 W. Washington St.; reported to erect 2-story 151x275-ft. planing mill; \$50,000.

S. C., Charleston—Whitaker-Jackson Lumber Co., Incpd.; capital \$3000; L. V. Whitaker, L. G. Jackson.

Tex., Beaumont—Baker-Wakefield Cypress Co., Plattenville, La.; erect sawmill.

W. Va., Magnolia—F. J. Kenney, Martinsburg, W. Va.; purchased 1700-acre timber tract.

W. Va., Richwood—Richwood Lumber Co., Weston, W. Va.; install sawmill. (Lately noted inceptd., capital \$50,000.)

Metal-Working Plants.

Ky., Louisville—Ignition Plugs—Ignition Plug Co.; increased capital from \$50,000 to \$100,000.

Mo., St. Louis—Tinware—Standard Stamping Co., 2000 N. Broadway; erect 1-story 24x41-ft. machine shop; contemplated.

Mo., St. Louis—Tinware—Schlueter Bros. Manufacturing Co., W. H. Schlueter, Prest., 4616 N. Broadway; 2-story building; C. F. May, Archt., Merchants' Laclede Bldg.

Tex., Ranger—Sheet Metal—Crescent Sheet Metal Co., Incpd.; capital \$10,000; F. E. Skinner, W. E. Skinner, A. M. Fitzgerald.

Mining.

Ala., Birmingham—Gravel—Southern Gravel Co., Incpd.; capital \$25,000; Knox Burger, Prest.; R. S. Lange, V.-P.; E. C. Ames, Secy.

Ark., Saline County—Fuller's Earth—Arkansas Fuller's Earth Refining Co., Little Rock, mine fuller's earth; erect \$150,000 plant. Ark., organized; J. H. Dubose, Prest.; John D. Martin, V.-P.-Mgr.; both Memphis, Tenn.; Lately noted inceptd., capital \$50,000.)

Fla., Bartow—Phosphate—Armour Fertilizer Works; main office, Chicago, Ill.; develop 100 acres; daily output, 200 tons phosphate rock.

Fla., Bartow—Phosphate—Florida Phosphate Mining Corp., A. A. McLeod, Supt., install steam-turbine plant; double capacity; ordered machinery.

Miss., Kemp's Bend—Gravel—Kemp's Bend Co., organized; D. W. McCord, Prest., 165 Broadway, New York; Morril Dunn, V.-P., People's Gas Bldg.; L. E. Harding, Treas., Home Insurance Bldg.; both Chicago, Ill.; develop 1000 acres; daily output 1000 to 5000 cu. yds.; install towboats, barges, dredge; \$300,000. (Supersedes recent item.)

Mo., Chilton—Iron—Carter County Mining

Co., Van Buren, Mo., organized; capital \$50,000; R. F. Morrison, Mgr.; leased 480 acres; install 20 H. P. hydraulic pump; 2½-in. pipe. (See Machinery Wanted—Pump; Pipe; Locomotive.)

Tex., Bay City—Sulphur.—Texas Gulf Sulphur Co., 50 E. 42d St., New York; increased capital from \$5,000,000 to \$7,600,000.

Miscellaneous Construction.

Ala., Birmingham—Port Facilities.—Port of Birmingham Co.; install cranes, tracks, general improvements; grading, rock and dirt excavation, rock embankment, railroad tracks; Reed & Lowe, Contrs.; 9 houses and office building; Home Building Co. of Alabama, Contr., Brown-Marx Bldg.; ordered steel rails and cast-iron pipe and culverts; total cost \$70,000 to \$75,000; Chas. F. Wood, Engr. (Previously noted to construct.)

Ark., Paragould—Canal.—Cache River Drainage Dist. No. 2; construct canal from Stonewall to Winchester, opening on river; J. S. Kochitzky, Contr.

D. C., Washington—Pool—City; C. S. Ridley in charge; construct 2018x100-ft. reflecting pool in West Potomac Park; drainage and water supply, conduit, pump and central house; Fisher & Carrozza Bros. Co., Contr., 805 Calvert Bldg., Baltimore, Md.

Fla., Miami—Canal.—Drainage Dist. Supyrs.; widening Tamiami Trail Canal; 400,000 cu. yds. excavation; drain 75,000 acres Everglades land; McGathlin & Clark, Contrs., Galveston, Tex.

La., Port Allen—Levee.—Atchafalaya Basin Levee Dist. Commrs., V. M. Lefebre, Prest.; interior protection levee; left bank Lower Grand River; contents 200,000 cu. yds.; bids until Dec. 17. (Previously noted.)

Md., Baltimore—Pier.—Canton Lumber Co., Boston St.; rebuild burned pier and warehouse.

Miss., Oxford—Channel.—Clear Creek Drainage Dist. Commrs., Lafayette County; construct channel; 130,160 yds. main channel; 500 yds. laterals excavation; clearing 48% acres right-of-way; bids until Dec. 27; W. M. Woodward, Chancery Clerk. (See Machinery Wanted—Channel.)

S. C., Charleston—Quay Wall.—Navy Dept., Bureau Yards and Docks, Washington, D. C.; construct quay wall; estimated cost \$180,000; bids until Dec. 10; specification 4078. (See Machinery Wanted—Quay Wall.)

S. C., Charleston—Channel.—War Dept., Washington, D. C.; will dredge both portions Cooper River; 40x700 ft. each; 1000 yds. south Navy-yard; United Dredging Co., New York, Contr.; 1500 yds. south, Atlantic, Gulf & Pacific Co., Contr., Park Row Bldg., New York, and Houston, Tex. (Previously noted.)

Miscellaneous Enterprises.

Ala., Birmingham—General Supplies.—Gulf States Supply Co. inceptd.; capital \$25,000; Calvin Jones, Prest.; James M. Jones, Secy.

Fla., Jacksonville—Transportation.—Dixie Highway Transportation Co. inceptd.; capital \$15,000; George P. Correll, Prest.; B. H. Sands, V.-P.; O. W. Topping, Secy.-Treas.

Fla., Miami—Amusements.—Miami Enterprises inceptd.; capital \$100,000; Geo. H. Hickman, Prest.; J. S. McCreight, V.-P.; J. O. Brown, Secy.-Treas.

Fla., Sebring—Construction.—Sebring Construction Co., capital \$20,000; H. O. Shaw, Prest.; W. O. Dowell, V.-P.; John A. Gallagher, Secy.; Charles Burt, Treas.

Ky., Louisville—Mushrooms, Endives, etc.—Fehr Products Co., 412 Fehr Ave., organized; capital \$10,000; Desha H. Harris, Prest.; Harry M. Brennen, V.-P.; Andrew F. Fehr, Secy.-Treas.; grow mushrooms, endives, etc.

La., Shreveport—Laundry.—Model Laundry organized; August Goldstein, Mgr.; erect \$75,000 building; install machinery; purchased site; total cost \$200,000.

Md., Baltimore—Steamship Lines.—Green Star Steamship Corp., Joseph Mercadante, Prest., Munsey Bldg.; Robert McGregor, Mgr.; main office New York; establish 4 steamship lines to trans-Atlantic ports; leased pier facilities; 31 steamers.

Md., Baltimore—Steamship Line.—Inter-American Navigation Co. inceptd.; capital \$2,325,000; Moore & McCormick, Inc., New York representatives; operate steamship lines; contemplates purchasing 5 vessels from United States Shipping Board.

Miss., Hattiesburg—Creosoting.—Hattiesburg Creosoting Co., Box 597, organized; R. B. McLeod, Prest.-Treas.; T. C. Hannah, Secy.; W. B. Woodruff, Jr., Mgr.; erect \$4000 office building; \$3600 brick boiler shed; \$5000 wooden frame iron-clad cylinder shed; \$2500 planing mill; install creosoting cylinders, pressure pumps, air compressor, timber sizer; purchased; Allis-Chalmers Mfg. Co., Archt., Milwaukee, Wis.; R. L. Skinner, Const. Engr., Hattiesburg.

Mo., Kansas City—Printing.—Baker-Vawter Co., main office Benton Harbor, Mich.; L. L. Slater and Charles B. Dart, Associate Mgrs.; erect 6-story-and-basement building; 50x142-ft. site; acquired Tiernan-Dart Printing Co.; Holt, Price & Barnes, Archts.; Long Construction Co., Contr.

Mo., Kansas City—Creosoting.—National Lumber & Creosoting Co., Texarkana, Ark., organized; E. W. Mead, Secy. Treas.; construct wood-preserving plant. (Previously noted inceptd., under Lumber Manufacturing, capital \$1,000,000.)

N. C., Ahoskie—Plumbing and Heating.—J. A. Eley Electric, Plumbing & Heating Co. inceptd.; capital \$50,000; J. A. Eley.

N. C., Charlotte—Engineering.—Southern Engineering Co. inceptd.; capital \$125,000; L. M. Craig, V. W. Breeze.

Okla., Oklahoma City—Publishing.—Oklahoma Democrat Co. inceptd.; capital \$10,000; E. J. Giddings, Oklahoma City; Byron Hawkins, H. M. Carr, both Pauls Valley, Okla.

Okl., Sayre—Publishing.—Headlight; rebuild burned plant.

S. C., Charleston—Transportation.—Charleston Transfer Co.; increased capital from \$20,000 to \$50,000.

S. C., Clinton—Laboratories.—Piedmont Laboratories inceptd.; capital \$50,000; W. C. Bailey, Prest.; J. D. Jacobs, V.-P.; C. E. Duckett, Secy.-Treas.

S. C., Columbia—Printing.—Southern Christian Advocate, W. C. Kirkland, Mgr., 1220 Taylor St.; erect 2-story 40x40-ft. mill-construction building; install printing presses, etc. (Previously noted to erect.)

S. C., Newberry—Fire Equipment.—City; Z. F. Wright, Mayor; fire equipment; voted \$12,000 bonds.

S. C., Paris Island—Coal Bin.—Navy Dept., Bureau Yards and Docks, Washington, D. C.; construct coal bin, Paris Island, S. C.; estimated cost \$5000; specification 4096; bids until Dec. 17.

Tex., Belton—Printing.—Mutual Press organized; Sam D. Ware, Prest.; E. A. Partlow, Secy.; Thos. Yarrell, Jr., Treas.; A. J. Saule, Mgr.; install \$10,000 printing plant. (Previously noted inceptd., capital \$3000.)

Tex., Fort Worth—Dyeing and Cleaning.—W. B. Fishburn, 4th and Calhoun Sts.; erect 3-story brick and concrete fireproof building; \$50,000.

Tex., Houston—Printing, etc.—Standard Printing & Lithographing Co., 1207 Capitol

Ave.; erect 2-story concrete and brick building; \$48,540; James Antil, Contr.

Tex., Mt. Vernon—Curing-house.—Franklin County Curing & Storage Co. inceptd.; capital \$20,000; G. O. Stanton, F. J. Joyce, W. R. Martin.

Va., Norfolk—Cleaning and Pressing.—K. D. Co. inceptd.; capital \$5000; Curt Karl, Prest.; Wm. S. Davis, Secy.

Va., Pulaski—Greenhouse.—Wertz Florist, Inc., Roanoke, Va.; erect greenhouse plant.

Va., Richmond—Mill Supplies.—Richmond Mill Supply Co. inceptd.; capital \$50,000; H. G. Guill, Prest.; A. C. Beinrich, Secy.

Miscellaneous Factories.

Ala., Andalusia—Pickles.—Price-Bruker Co.; capital \$100,000; enlarge pickle plant; build sweet potato and berry cannery.

Ala., Birmingham—Cones.—Consolidated Cone Co. organized; capital \$20,000; Jos. B. Pool, Prest.-Treas.; W. A. Johnson, Mgr.; \$14,000 automatic cone machines ordered; daily output ice-cream cones 300,000. Lately noted inceptd. (See Machinery Wanted—Cones.)

Ala., Long Island—Peanut Butter.—Church of Jehovah, J. A. Corbell, Supt.; establish peanut-butter plant. (See Machinery Wanted—Peanut-butter Machinery.)

Ala., Normal—Overalls.—Walter S. Buchanan; has 215x500-ft. site; contemplates establishing overall factory; electric power. (See Machinery Wanted—Overall Factory Equipment.)

Ark., Fort Smith—Lamp Chimneys.—Model Window Glass Co.; purchased site; erect lamp-chimney plant.

D. C., Washington—Paper Cans.—National Paper Can Corp., 419 E. Lombard St., Baltimore, Md., chartered; capital \$100,000; Sol Weiner, Prest., Baltimore, Md.; Geo. R. Penn, Mgr., Washington; has plant; daily capacity 24,000 round paper cans. (Previously noted at Baltimore, Md.)

Fla., Jacksonville—Turpentine.—McDonald Turpentine Co. inceptd.; capital \$25,000; A. A. McDonald, Prest.; J. H. Blount, Secy.-Treas.

Fla., Tampa—Coca-Cola.—Tampa Coca-Cola Bottling Co.; increase capital from \$10,000 to \$30,000.

Fla., Tampa—Cigars.—Wm. S. Seidenberg Co. inceptd.; capital \$90,000; Wm. J. Seidenberg, Prest.; D. H. Woodberry, Secy.-Treas.

Ga., Atlanta—Oxygen Gas, etc.—Bird-Wilcox Co.; build \$150,000 plant; manufacture oxygen gas, etc.; Deford Smith, Archt.; A. V. Gude, Contr.

Ga., Elberton—Overalls.—Hamilton Carhartt Cotton Mills, Detroit, Mich.; establish overall factory; acquired 3-story brick building; remodel.

Ga., Macon—Candy.—Garrison-Cook-Morgan Co. inceptd.; capital \$100,000; J. W. Garrison, E. P. Cook, Chas. G. Morgan.

Ga., Valdosta—Naval Stores.—Valdosta Naval Stores Co. inceptd.; capital \$25,000; Jas. A. Campbell, Jr., Orley Brownell, Chas. S. Griffin.

Ky., Henderson—Chera-Cola.—Henderson Chera-Cola Bottling Co. inceptd.; capital \$10,000; H. R. Dill, J. E. Blanford, P. A. Elder.

Ky., Louisville—Wax Paper, etc.—Reynolds Corp., 13th and Grand Ave.; purchased \$30,000 property; erect additional factory and warehouse; double output.

Ky., Louisville—Paints.—R. & S. Bonnie inceptd.; capital \$50,000; Robert and Sevier Bonnie, R. C. Kinkead.

La., Alexandria—Soldering Compound.—Sanitary Soldering Oil Co. inceptd.; capital \$50,000; Jas. M. Fream, Prest.-Mgr., 335 De Soto

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St., Monroe, La.; M. E. Glatfelter, Secy.-Treas., Alexandria.

La., Bogalusa—Paper.—Bogalusa Paper Co.; enlarge plant.

La., Braithwaite—Paper Bags.—E Z Opener Bag Co., New Orleans, La.; acquired paper mill; enlarge capacity; install machinery; bag paper from yellow-pine pulp.

La., De Ridder—Creamery.—Chamber of Commerce, J. C. Fowler, Secy.-Mgr.; interested in plans to establish creamery. (See Machinery Wanted—Creamery Equipment.)

La., Lake Charles—Soap Products.—Victory Manufacturing Co. Incptd.; capital \$10,000; Chas. A. Toce, Prest., Gen. Mgr.; D. E. Le Bleu, V.-P. and Pur. Agt.; construct 100x50-ft. factory; manufacture soap products.

La., New Orleans—Condiments.—Oscar Dowling Food Products Co. Incptd.; capital \$100,000; Oscar Dowling, Prest., Shreveport, La.; Potter Palmer, V.-P., Chicago, Ill.; P. H. Roberts, Secy.-Treas., New Orleans; purchased Roberts-Wiegand Pickle Co.; plans increasing New Orleans facilities; establish salting stations in Louisiana, Mississippi and other States. (Supersedes recent item.)

Md., Baltimore—Cork Products.—Crown Cork & Seal Co., J. M. Hood, Jr., Prest., 1511 Guilford Ave.; contemplates factory addition.

Md., Baltimore—Hats.—Sterling Hat Co., Moses F. Dworsky, Prest., 201 S. Charles St.; leased 2 floors, 10,000 sq. ft.; manufacture hats.

Md., Baltimore—Bakery.—Kolb Baking Co., Philadelphia, Pa.; acquired 60x200-ft. site; construct \$200,000 bakery; Mr. Slack, Archt., Philadelphia.

Mo., Kansas City—Slides.—Kansas City Slide Co., 1015 Central St.; build 2-story and basement 40x110-ft. brick and stone trimmed factory; R. A. Curtis, Archt., 536 Reserve Bank Bldg.; Hedrick & Huff, Structural Engineer, 506 Interstate Bldg.

Mo., St. Louis—Food Products.—Temtor Corn & Fruit Products Co., M. G. Clymer, Prest.-Mgr.; construct 23x65-ft. fireproof building; \$50,000 machinery ordered; daily output 100,000 lbs. preserves and jellies; H. G. Clymer, Archt.; Wainwright Bldg. (Supersedes recent item.)

Mo., Springfield—Medicine.—Dr. Diemer Medicine Co.; enlarge plant; purchased buildings; will remodel; \$8000.

Mo., St. Joseph—Candy.—Douglas Candy Co., R. W. Douglas, Prest., 217 S. 2d St.; build 4-story and basement, 40x140-ft. factory addition; Walter Boschen, Archt., Tottie-Lacey Bank Bldg.; E. H. Lawhorn Construction Co., Gen. Contr., 905 Edmond St.; E. H. Lawhorn, Engr. (Supersedes recent item.)

Mo., St. Louis—Jack & Jill Co. Incptd.; capital \$50,000; Walter and Florence N. Gemmer, Hugh K. Wagner.

Mo., St. Louis—Candy, Chemicals, Drugs, etc.—United Drug Co., 43 Leon St., Boston, Mass.; build factory for candy, chemicals, drugs, perfumed creams, powders, paper boxes and printed supplies; Harry M. Hope Engineering Co., Engr., 185 Devonshire St., Boston, advises Manufacturers Record: 9-acre plant site; 4-acre welfare and recreation center development; 430x80-ft. factory; 100x100-ft. crude and 200x100-ft. finished stock buildings; each 7 stories with basement; 1-story-and-basement 43x40-ft. receiving building; 81x50-ft. boiler plant and electrical substation; flat slab type reinforced concrete throughout for factory and stock building; wood and concrete receiving building; brick walls, steel frame and concrete roof for boiler plant and sub-station; granolithic finished floors; steel sash glazed with clear glass in lower half and factory ribbed glass in upper half of factory; rolling steel shutter type doors on warehouse shipping and

receiving floors; automatic sprinkling and fire alarm system; direct steam radiation heating equipment; mechanical refrigeration and air-conditioning equipment in candy and certain areas of storehouses; 8 electric elevators; chutes; conveyors; telephones; complete equipment for drug, perfume and candy manufacturing departments; three 300 H. P. boilers, automatic stokers, coal and ash-handling equipment, etc., for power station; 150-ft. reinforced concrete chimney for boilers; transformers for sub-station; equipment to cool drinking water; hospital, restaurant, etc.; Harry M. Hope Engineering Co. in charge of design, supervision and purchase of all equipment; Westlake Construction Co., Gen. Contr., St. Louis. (Supersedes recent item.)

Mo., St. Joseph—Tablets.—Western Tablet Co.; construct \$364,000 building; 6 stories and basement; reinforced concrete and steel daylight construction; reinforced flat slab floors; locker and restrooms, hospital and cafeteria for employees in basement; 2d floor for offices; remainder for manufacturing purposes; install automatic sprinkling system, heating, plumbing and elevators; \$86,000; erect 2 additional buildings, 50x300 ft. each; build powerhouse for light and elevator, with machinery; \$100,000; Swensen Construction Co., Gen. Contr., Kansas City, Mo.; Rudolph Meier, Archt.

N. C., Charlotte—Oil Recovery.—Swift & Co., Chicago, Ill.; construct 2 buildings; oil-recovery plant; 80x17 and 30x30 ft.; \$7250.

N. C., Charlotte—Beverages.—Whistle Bottling Co. Incptd.; capital \$50,000; W. F. and Mrs. W. F. Kaderly, Charlotte; Mary E. Kaderly, Chattanooga, Tenn.

N. C., Raleigh—Toilet Articles.—American Product Co. Incptd.; capital \$500,000; Scott Fillman.

N. C., Reidsville—Cigarettes.—Tobacco Products Co., Robert Harris; establish factory; mfr. cigarettes.

N. C., Salisbury—Ice Cream.—Artic Ice Cream Co., Greensboro, N. C.; establish ice-cream factory.

N. C., West Asheville—Paints, etc.—West Asheville Paint & Varnish Co. Incptd.; \$30,000; S. F. Fortune, A. E. Belk, both West Asheville; G. L. Fortune, Biltmore.

Okl., Oklahoma City—Candy.—Oklahoma Candy & Commission Co. Incptd.; capital \$50,000; Ash Morris, Geo. W. Stone, Neil Eichenberger.

Okl., Oklahoma City—Potato Chips.—Acme Potato Chip Co. Incptd.; capital \$5000; John and Lina Nelswinter, Bess Knoyse.

Okl., Shawnee—Cigars, etc.—Metropolitan Cigar & Candy Co. Incptd.; capital \$25,000; M. J. McLaughlin, Everet W. Hill, A. A. Richards.

S. C., Greenville—Beverages.—Orange-Crush Bottling Co. organized; capital \$50,000; J. S. Salley, Prest., Orangeburg, S. C.; T. A. Jeffords, Jr., Mgr., Greenville; construct 40x80-ft. metal roof and concrete foundation building; L. A. Walker, Contr., Orangeburg; install bottling machinery, etc.; daily output 1000 cases beverages.

Tenn., Clifton—Button Blanks.—Clifton Pearl Button Co., Louis Igert, Propr.-Mgr.; has building; \$1000 button machines and oil engine ordered; mfr. button blanks from mussel shells. (Supersedes previous item.)

Tenn., Memphis—Chemicals.—Perfect Products Co. organized; capital \$200,000.

Tex., Dallas—Graham Mfg. Co.; increased capital from \$6000 to \$20,000.

Tex., Dallas—Rubber.—Dealers' Rubber Co. Incptd.; capital \$100,000; J. I. Cowans, G. S. McGhee, W. W. Spruce.

Tex., San Antonio—Candy, etc.—Duerler

Pecan Shelly & Candy Factory, 823 S. Laredo St.; rebuild burned \$20,000 to \$30,000 plant.

Tex., San Antonio—Brooms.—San Antonio Broom Factory Incptd.; capital \$5000; W. M. Hill, W. H. Northway, J. Willis Johnson.

Va., Bristol—Ice Cream.—Bristol Ice Cream Co., 420 Scott St.; build creamery addition. (See Ice and Cold-storage.)

Va., Bristol—Creamery.—Cloverdale Creamery Incptd.; capital \$20,000; W. W. Smith, Prest.; W. Lewis, Secy., both Johnson City, Tenn.

Va., Lynchburg—Shoes.—Fritz-Richards Co.; build 3-story 48x162-ft. mill-construction shoe factory; install machinery; Heard & Chesterman, Archts., People's Bank Bldg.; C. W. Hancock & Sons, Contrs., 601-4 Krieg Bldg.

Va., Radford—Overalls.—King & Howell, Norfolk, Va.; overall factory; contemplated.

Va., Roanoke—Shoes.—Children's Shoe Co. organized; subsidiary of Griggs-Paxton Shoe Co.; children's shoes.

W. Va., Clarksburg—Window Glass.—Lafayette Window Glass Co.; increased capital to \$36,000.

W. Va., Morgantown—Glass.—United States Window Glass Co.; rebuild burned \$200,000 plant.

W. Va., Parkersburg—Shoes.—Graham Bros. Shoe Co. Incptd.; capital \$50,000; T. E. Graham, C. D. Bumbarner, O. D. McGraw.

W. Va., Wheeling—Glass.—Hazel-Atlas Glass Co., W. S. Brady, Prest., Conservative Life Bldg.; increased capital from \$6,000,000 to \$10,000,000.

Motor Cars, Garages, Tires, Etc.

Ark., Pine Bluff—Automobiles.—Bernhardt Motor Co. Incptd.; capital \$10,000; Jack Bernhardt, Prest.; H. V. Bahla, V.-P.; C. O. Williams, Secy.-Treas.

D. C., Washington—Garage.—Edwin Shulle, 320 Center Market St.; erect 1-story 18x45-ft. garage; D. E. Nichol, Contr., Real Estate Trust Bldg.

D. C., Washington—Garage.—W. A. Luke, care of Atkinson & White, 818 Connecticut Ave.; erect 1-story garage; brick and concrete; has plans.

Fla., Miami—Automobile Tops, etc.—Auto Top & Trim Co. Incptd.; capital \$2000; Welton Tyler, Prest.; John E. Holland, V.-P.; W. H. Gragg, Secy.-Treas.

Fla., Tampa—Automobiles.—Woodworth-Berry Motor Co. Incptd.; capital \$25,000; H. R. Lightfoot, Prest.; C. P. Woodworth, V.-P.; Secy.; J. S. Berry, Gen. Mgr.-Treas.

Fla., Tampa—Automobiles.—Hulsey-Cralle Co. Incptd.; capital \$50,000; M. J. Hulsey, Prest.; R. B. Cralle, V.-P.; J. T. Watson, Secy.-Treas.

Ga., Atlanta—Accessories.—Walter T. Candler; erect 2 and 4-story 77x75x55-ft. building; \$200,000; Massell Realty Co., Contr.

Ga., Atlanta—Automobile Bodies.—W. J. Milam; erect building; Massell Realty Co., Contr.

Ga., Savannah—Automobiles.—Motor Supply Co., 112 Bryan St., Incptd.; capital \$100,000; W. L. Thompson, Prest.; L. L. Desbouillons, V.-P.; J. R. Parker, Secy.-Mgr.

Ky., Lexington—Garage.—Marshall-Featherstone Motor Co., S. B. Featherstone, Secy.; erect 12x200-ft. building; mill construction; \$25,000; Combs Lumber Co., Archt.-Contr. (Lately noted.)

Ky., Louisville—Garage.—Western Petroleum Co., E. L. Hughes, V.-P.; erect 135x35-ft. garage, warehouse, boiler plant, pumphouse, cooperage plant, machine shop; \$300,000.

Md., Baltimore—Garage.—Marion D. Wil-

Hiamson, 212 E. 20th St.; erect 16.3x12x42-ft. garage; \$14,000.

Md., Baltimore—Garage.—H. L. & E. L. Blum, 42 E. Preston St.; erect 1-story, 60x100-ft. garage; \$15,000; E. G. Blanke, Archt., 213 N. Calvert St.; drawing plans.

Md., Hagerstown—Garage.—Fleigh Motor & Fire Co., care of Robert Fleigh; erect 1 and 2-story garage; C. F. Schleigh, Contr., South Common Ave.; Fred J. Mack, Archt., Negley Bldg.

Md., Baltimore—Garage.—Solomon Gridberg, Newport News, Va.; alter garage; plans drawn.

Md., Baltimore—Garage.—Max J. Serve, 776 Columbia Ave.; erect 12x32-ft. addition to garage; construction by owner.

Md., Baltimore—Garage.—Callis & Callis, Archts., 2055 Kennedy Ave.; drawing plans for 1-story 65x65-ft. garage.

Md., Baltimore—Tires.—Delion Tire Co. of Trenton, N. J., and 131 W. Mt. Royal Ave., Baltimore, has site; plans factory; daily capacity 500 tires.

Md., Baltimore—Garage.—Edward J. Storck, 623 Munsey Bldg.; erect 1-story 32x38-ft. garage; brick; \$5400; Harry E. Storck, Archt. (Lately noted.)

Md., Baltimore—Garage.—Martin A. Berger, care of Popular Theater, Poplar Grove near Edmondson Ave.; erect 1-story 50x131-ft. garage and store; construction by owner.

Md., Baltimore—Garage.—Mrs. Julia R. Emory, care of Jas. S. Nussear, Archt., 306 Professional Bldg.; erect 90x40-ft. garage.

Miss., Lexington—Automobiles.—Lexington Automobile Co.; erect building; A. L. Dickson, Contr., Jackson, Miss.

Miss., McComb City—Auto Display-room.—J. K. Dunn; erect auto display-room and repair shop on 100x190-ft. site; \$30,000.

Miss., Pascagoula—Tires.—Continental Tire & Rubber Co.; erect plant for automobile tires; brick; cement; glass; will let contract. (Lately noted.)

Mo., Hannibal—Tires.—Hannibal Rubber Co., A. E. Gibson, Secy.; erect 3-story 80x200-ft. building; ordinary construction; bids about Dec. 15; install rubber manufacturing machinery for automobile tires and inner tubes; Burgher Bros., Archts. (Lately noted.)

Mo., Kansas City—Garage.—G. M. Baltis, 3801 Wabash Ave.; erect 1-story and basement 60x76-ft. garage; brick; stone trimming; composition roofing.

Mo., Kansas City—Service Stations.—Sinclair Refining Co., 111 W. Washington Ave., Chicago, Ill.; drawing plans for 2 1-story service stations; brick and stucco; has let contract to Long Constr. Co., 67 Rialto Bldg., for another 1-story service station.

Mo., Kansas City—Garage.—Richard Wiles, care of Geo. F. Green, Archt., 424 Rialto Bldg.; erect 3-story and basement 100x105-ft. building; brick; stone or terra-cotta trimming; reinforced concrete; fireproof; Hedrick & Huff, Struct. Engrs., 506 Interstate Bldg. (Lately noted.)

Mo., St. Louis—Accessories.—John Nauman, care of Urzida Realty Co., 4012 Chouteau Ave.; contemplates erecting automobile-accessory plant; \$40,000.

Mo., St. Louis—Service Station.—St. Louis Motor Co., John Boe, Prest., will occupy 4-story building to be erected by Haile Investment Co., 3100 Locust St.; \$200,000.

N. C., Asheville—Garage.—Cazel Curry Car Co., F. A. Cazel, Mgr., 17-19 Market St., will occupy 3-story 50x140-ft. fireproof garage to be erected by J. T. Bledsoe & Co.; \$50,000; machinery \$20,000.

Okl., Muskogee—Automobiles.—Mills Motor Co., inceptd.; capital \$25,000; C. B. Mills, J. P. Solomon, C. P. Gotwals.

Okl., Tulsa—Garage.—Oklahoma Producing & Refining Co.; erect garage; fireproof.

S. C., Greenville—Filling Station.—W. D. Cox, Jr.; erect 1-story, 10x24x51-ft. filling station; \$250.

S. C., Greenville—Automobiles.—Victory Motor Car Co., inceptd.; capital \$10,000; W. T. C. Bates, Jr., R. P. Mayfield, Dell Petrys.

S. C., Greenville—Garage.—R. N. Tannahill; erect 2-story 75x90-ft. garage; fireproof; steel; reinforced concrete; elevator; J. E. Sirrine, Archt.

S. C., Mullins—Automobiles.—Smith-Hubbard Co., inceptd.; capital \$10,000; H. Hubbard, T. C. Smith, Ed Mason.

Tenn., Clarksville—Garage.—Waller & Edmondson Motor Co., R. M. Waller, James Edmondson; erect 1-story and basement 57x147-ft. garage; fireproof; J. H. Ellarson, Archt.-Contr.

Tenn., Johnson City—Automobiles.—Automobile Renewal Co., 516 W. Market St., inceptd.; capital \$12,000; Buford A. Mathes, Prest.; J. K. Miller, Neill A. Beasley. (See Machinery Wanted—Automobiles, Accessories, etc.)

Tex., Beaumont—Automobiles.—Rupert Cox Automobile Supply Co., inceptd.; capital \$75,000; Rupert Cox, L. E. Ney, G. H. Sheyher.

Tex., Dallas—Automobiles.—Stearns Motor Co., I. epitd.; capital \$75,000; Charles A. Weathered, Perry T. Neal, A. L. Mitchell, & Holden; erect 50x120-ft. filling station; concrete; brick; wood; composition roof; cement floor; hot-water heat; \$600; knob and tube electric-lighting plant; Harrison Constr. Co., Archt.-Contr., Petersburg, Va.

Tex., Dallas—Automobiles.—Glide Motor Co., inceptd.; capital \$30,000; J. F. Wilson, Sam Dysterbach, W. R. Page.

Tex., Dallas—Automobiles.—McCallon Automobile Co., inceptd.; capital \$10,000; H. T. McCallon, L. H. McCallon, O. D. Brundidge.

Tex., Dallas—Automobiles.—Engle Automobile Sales Co., inceptd.; capital \$10,000; H. C. Barnard, W. N. Fullwood, W. W. Engle.

Tex., Houston—Motor Trucks, etc.—Southern Motor Mfg. Assn., Jacques E. Belvins, Prest., Beatty Bldg.; fireproof plant to mfr. trucks, trailers, commercial bodies and tractors; to be followed by passenger-car production; C. W. Hedrick Construction Co. has contract for present units; later invite proposals for future units; F. E. Crotto, Archt.-Constr. Engr. (Lately noted letting contract for \$50,000 building.)

Tex., San Antonio—Garage.—Army Garage & Automobile Co., inceptd.; capital \$30,000; E. W. Scott, M. L. Cummings, E. A. Kelly.

Tex., San Antonio—Garage.—A. E. Staacke Automobile Co.; erect garage; \$16,500.

Tex., San Antonio—Garage.—Alex. M. Half; erect garage; \$16,000; Herbert S. Green, Archt.

Va., Danville—Garage.—Crowell Automobile Co., A. J. Crowell, Prest., 542 Craghead St.; erect 2-story 110x176-ft. brick building; Heard & Chesterman, Archts., Arcade Bldg.

Va., Lynchburg—Garage.—Garnett B. Dinguid; erect 47x55-ft. garage; brick and concrete; Barrett roofing; concrete floors; Hamilton Bros., Contrs.; Stanhope S. Johnson, Archt.

Va., Lynchburg—Automobiles.—Commercial Motor Co., inceptd.; capital \$25,000; H. H. Meschendorf, Prest.-Treas.; D. A. Hurley, 1st V. P.; Grafton II, Duval, 2d V.-P.-Secy.

Va., Norfolk—Garage.—Reliance Electric Co., Willard Batteries, 711 Granby St.; erect 2-story 40x104-ft. garage and storage-battery station; brick; reinforced concrete; Wickham Taylor, Archt., Citizens' Bank Bldg.

Va., Peakland—Garage.—Lloyd A. Myers, Republic Motor Truck Co., Lynchburg, Va.;

erect 2-story 24x27-ft. garage; Hamilton Bros., Contrs., Lynch Bldg., Lynchburg; Stanhope S. Johnson, Archt., People's Bank Bldg., Lynchburg.

W. Va., Clarksburg—Repair Shop.—Motor Service Co., inceptd.; J. J. Webster, Glen F. Williams, B. B. Jarvin.

W. Va., Clarksburg—Garage.—Williams Garage Co., I. epitd.; capital \$10,000; Charles T. Williams, Frank M. Power, C. B. Stotler.

W. Va., Keystone—Garage.—Frank Pais; rebuild 2-story garage; \$25,000.

Road and Street Construction.

Ala., Selma—City; construct 15,000 paving on Selma Ave.; vitrified brick on concrete base; \$40,000; Alabama Paving Co., Contr., Selma and Birmingham; W. O. Crisman, City Engr. (Lately noted inviting bids.)

Ala., Montgomery—City, J. L. Cobbs, Treas.; pave roadway of Morgan Ave.; brick, asphalt, bituminous, mineral rubber, wood block or concrete; bids until Dec. 23; H. A. Washington, Engr. (See Machinery Wanted—Paving.)

Ark., Pocahontas—West Randolph County Road Improvement Dist., E. Dalton, Chrm.; construct 122.56 mi. gravel road and 19.69 mi. macadam road; culverts and bridges; 122.90 cu. yds. gravel surfacing; 45,712 cu. yds. macadam; bids until Dec. 19; Land & Hill, Engrs., 527 Southern Trust Bldg., Little Rock. (See Machinery Wanted—Road Construction.)

Fla., Bradenton—Manatee County River, Bay & Gulf Special Road and Bridge Dist.; construct 12.8 mi. oil shell road; \$85,000; Finley Method Co., Contr., Houston, Tex.; Richard M. Carty, Engr., Sarasota, Fla. (Lately noted inviting bids.)

Fla., Jacksonville—Duval County Comms., Frank Brown, Clk.; repair 6½ mi. Atlantic Blvd.; \$50,000; J. Y. Wilson Construction Co., Contr. (Lately noted inviting bids.)

Fla., Lake City—Columbia County Comms., J. L. Markham, Clk.; construct hard-surfaced public roads; \$90,000 available; lately noted; bids until Jan. 6. (See Machinery Wanted—Road Construction.)

Fla., Lakeland—City; pave streets; \$53,883.65; Stidham & Hughes, Contrs.

Fla., Ocala—Marion County Comms.; defeat \$1,500,000 road bonds. (Lately noted to vote.)

Fla., Panama City—City; construct 2 mi. brick, concrete or asphalt streets; 6 mi. sand-clay asphalt streets; 15,000 sq. yds.; vote in Jan. on \$150,000 bonds; F. S. Parrigin, Engr. (Supersedes recent item.)

Fla., Sumterville—Sumter County Comms.; construct 40 mi. roads; brick, asphalt, concrete, bituminous; \$750,000; bids until Dec. 15; Young-Merrin Co., Engr., Dade City, Fla.; supersedes recent item. (See Machinery Wanted—Road Construction.)

Fla., Tallahassee—State Road Dept., J. P. Clarkson, Secy.; construct roads; \$2,500,000; invite bids before Jan. 1.

Ga., Rome—Floyd County, Comms. Roads and Revenues, Graham Wright, Clerk; construct 2,845 mi. hard-surfaced pavement on Rome to Lindale road; Georgia Federal-aid Project No. 54; 30,080 sq. yds. asphaltic macadam; 18-ft. roadway; \$91,905.36; one-half Federal aid; Meadows Construction Co., Contr., Atlanta; J. B. McCreary Co., Engr., 1408 Third Natl. Bank Bldg., Atlanta. (Lately noted inviting bids.)

Ga., Thomasville—Thomas County Comms. Roads and Revenues, S. L. Head, Clk.; construct 2½ mi. road; Federal Aid, Georgia Project No. 99; one-course concrete, bituminous macadam, rock asphalt, asphaltic concrete on concrete base; 26,400 sq. yds. pavement; 26,400 sq. yds. machine grading; bids

until Jan. 6; Frank Mitchell, County Highway Engr. (See Machinery Wanted—Road Construction.)

Ky., Lexington.—Fayette County Comms.; improve 75 mi. macadam highways; \$210,000.

Ky., Madisonville.—Hopkins County Commissioners; construct roads; voted \$500,000 bonds. (Lately noted to vote.)

La., Colfax.—Grant Parish Police Jury; construct roads and bridges in Dist. No. 9; voted \$600,000 bonds.

La., Franklin.—State Highway Dept., 736 Maison Blanche Annex, New Orleans; construct 23 mi. Franklinton-Pearl River Highway; Sections A-1 and A-2; gravel; 11.97 mi. Franklinton-Mississippi State Line Highway; gravel; Washington Parish; bids until Dec. 15; changed date from Oct. 27; Duncan Buie, State Highway Engr., New Orleans. Lately noted receiving bids. (See Machinery Wanted—Road Construction.)

La., Hahnville.—State Highway Dept., 736 Maison Blanche Annex, New Orleans; construct 6.23 mi. Baton Rouge-New Orleans Highway; gravel; St. Charles Parish; bids until Dec. 15; Duncan Buie, State Highway Engr. (See Machinery Wanted—Road Construction.)

La., Lake Charles.—City, E. S. Crosby, Commissioner Streets and Parks; pave Cleveland, Kirkman, Gill and Pithon Sts. with concrete; Clarence, Iris, North and Ford Sts. with vitrified brick or other pavement; cement sidewalks on Iris, Fourth Sts. and City Hall square; bids opened Dec. 10. (See Machinery Wanted—Paving.)

La., Monroe.—Ouachita Parish Police Jury, W. Oakley, Clk.; construct gravel roads; voted \$1,600,000 bonds. (Lately noted to vote.)

Md., Baltimore.—Board of Awards; pave 29th St. and Cloverhill Rd. with concrete; \$4000; F. M. Latham & Co., Contrs., Pulaski St. and Harlem Ave.; Geo. F. Wieghardt, Highway Engr. (Lately noted inviting bids.)

Miss., Monticello.—Lawrence County Commissioners Dist. No. 5; construct roads; vote on \$70,000 bonds.

Miss., Natchez.—Adams County Supr., construct 3.6 mi. road; Federal-Aid Project No. 80; State Trunk road between Natchez and Fayette; 5700 cu. yds. gravel; bids until Dec. 16; Xavier A. Kramer, State Highway Engr., Jackson. (See Machinery Wanted—Road Construction.)

Mo., Neosho.—Newton County, W. H. Swanson in charge, Granby, Mo.; construct gravel roads in Granby Special Road Dist.; \$57,500. (Lately noted to vote.)

Mo., Springfield.—Greene County Comms.; construct roads in Center Township; contemplate voting on \$2,000,000 bonds.

N. C., Salisbury.—City, W. T. Rainey, Clk.; construct \$300 sq. yds. bituminous paving; 1650 sq. yds. street-railway paving on S. Fulton St.; bids opened Dec. 10. (See Machinery Wanted—Paving.)

S. C., Camden.—Kershaw County Supr., Mr. West, Supvr.; construct 2.2 mi. 28-ft. roadway; grading, draining, local gravel surface; \$25,000 available; Chitwood & Palmer, Contrs., Conway, S. C.; Mr. Fitzsimmons, County Engr., Camden, S. C. (Supersedes recent item.)

Tenn., Dover.—Stewart County Comms., G. W. Williams, Clk.; construct roads; voted \$200,000 bonds. (Lately noted to vote.)

Tenn., Rogersville.—State Highway Comms., W. P. Moore, Ch. Engr., 327 7th Ave., Nashville; construct 43 mi. Memphis to Bristol Highway; \$1,000,000; Southern Constr. Co., Contr., Harriman, Tenn. (Lately noted to vote.)

Tex., Beeville.—Bee County Comms.; hard-

surface 42 mi. Goldad road; \$500,000; improve lateral roads; \$200,000; voted \$600,000 bonds.

Tex., Gatesville.—Coryell County Comms.; construct roads; vote on \$1,000,000 bonds.

Tex., Cameron.—Milam County Comms.; construct roads in Dist. No. 29; voted \$150,000 bonds. (Lately noted contemplating voting.)

Tex., Georgetown.—City; plans 25 blocks street paving. Address The Mayor.

Tex., Liberty.—Liberty County, C. N. Smith, Judge; construct 8.5 mi. gravel road; 17,153.55 cu. yds. gravel surfacing; bids until Jan. 12. (See Machinery Wanted—Road Construction.)

Tex., Lubbock.—City; construct streets; voted \$100,000 bonds. Address The Mayor.

Tex., Nocona.—City; contemplate paving business section. Address The Mayor.

Tex., San Angelo.—Tom Green County Commissioners; grade 26½ mi. Del Rio-Canadian State Highway No. 4; \$35,252.76; M. L. Martin, Contr., Tulsa, Okla.; J. E. Beavers, Engr., San Angelo, Tex. (Lately noted inviting bids.)

Tex., Tyler.—Smith County Highway Coms.; construct 7½ mi. road; concrete and gravel surfacing; \$10,065; Harris & Powell, Contrs.; D. K. Caldwell, Highway Engr. (Lately noted inviting bids.)

Tex., Wharton.—Wharton County Comms.; construct 5.9 mi. Highway No. 3; Federal-Aid Project No. 15; 4.39 mi. grading; 15,400 cu. yds. gravel; 61,000 sq. yds. bituminous surface; bids until Dec. 22; B. D. King, County Engr. (See Machinery Wanted—Road Construction.)

Tex., Woodville.—Tyler County Comms.; construct 265 mi. roads and bridges; \$800,000; bids latter part January; Hess & Skinner, Engrs. (See Machinery Wanted—Road Construction.)

Va., Chatham.—Pittsylvania County Supervisors; construct 9.5 mi. soil road; bids until Dec. 16; H. T. Ammerman, County Engr. (See Machinery Wanted—Road Construction.)

W. Va., Logan.—Logan County Comms.; construct roads; voted \$1,000,000 bonds; J. M. McLaren, County Engr. (Lately noted to vote.)

SEWER CONSTRUCTION.

Ark., Blytheville.—City; improve sewer system; \$25,000 bonds. Address The Mayor.

Fla., Panama City.—City; construct 18 to 24-in. storm sewer; \$20,000; 8-in. sanitary sewer; \$10,000; F. S. Parrigan, Civil Engr., prepared preliminary estimates; vote in Jan. on \$30,000 bonds. (Lately noted to vote.)

Okla., Medford.—City; construct sewer system; vote Dec. 11 on \$50,000 bonds. Address The Mayor.

Md., Mt. Airy.—City; construct sewer system; \$75,000 bonds. Address The Mayor.

Miss., Senatobia.—City; install sewer system; voted \$15,000 additional bonds. Address The Mayor.

N. C., Mebane.—City, W. S. Crawford, Mayor; construct sewer system; vote on \$60,000 bonds. (Lately noted to vote.)

Okl., Chandler.—City, D. D. Landsaw, Clerk; construct \$37,400 main and lateral sewers in Dist. No. 2; 1200 lin. ft. sewer lines; V. V. Long & Co., Const. Engrs., 1390 Concord Bldg., Oklahoma City; contracts not awarded. (Lately noted bids opened Nov. 25.)

S. C., Batesburg.—Comms. of Public Works; construct sewer and water systems; 2 septic tanks; 34,000 lin. ft. S. 10 and 12-in. vitrified clay pipe; 56 manholes, 10 flush holes; bids until Dec. 15; Nisbet Wingfield, Const. Engr., Augusta, Ga. (See Machinery Wanted—Sewers.)

Tex., El Paso.—City, Chas. Davis, Mayor; install \$35,000 to \$40,000 improvements; two 15-

in. pumps; 2 distillate engines; two 100 H. P. electric motors; construct disposal-plant addition. (Supersedes recent item.)

SHIPBUILDING PLANTS.

S. C., Charleston—Steel Vessels.—Charleston Dry Dock & Machine Co. formed as reorganization of Valk & Murdoch Co.; capital \$2,500,000; W. R. Bonal, Pres.; Chas. Valk, V. P.; Chas. V. Boykin, Gen. Mgr.; build additions to include foundry, machine and boiler shops.

TELEPHONE SYSTEMS.

Ala., Long Island.—Church of Jehovah, J. A. Correll, Supt.; install telephone exchange. (See Machinery Wanted—Telephone Exchange.)

Fla., Tampa.—Navy Dept., Bureau Yards and Docks, Washington, D. C.; re-erecting and removing radio towers at naval station; estimated cost \$3500; specifications 4088; bids until Dec. 10.

N. C., Chimney Rock.—Southern Bell Telephone & Telegraph Co.; construct line. Asheville to Chimney Rock.

N. C., Rocky Mount.—Home Telephone & Telegraph Co.; \$70,000 plant improvements; install underground conduit system; additional section of switchboard, etc.

N. C., Lexington.—Lexington Telephone Co.; erect 2-story brick building; install automatic telephone system; contemplated.

Tex., Austin.—Southwestern Telegraph & Telephone Co.; erect 2-story and basement telephone exchange; 55x97 ft.; C. H. Page & Bros., Archts., Austin National Bank Bldg. (Previously noted to erect.)

TEXTILE MILLS.

Ala., Talladega—Cotton Cloth.—Chinnabee Cotton Mills and Highland City Cotton Mills, W. S. Freeman, Prest.; build large additions, including dyehouse for denim.

Miss., McComb—Cotton Products.—McComb Cotton Mills, C. K. Taylor, Gen. Supt. and Mgr.; add 550 looms; purchased.

N. C., Bessemer City—Cotton Products.—George Cotton Mills Co., Incptd.; capital \$150,000; Jno. J. and H. D. George, T. C. Sumner; all Cherryville, N. C.

N. C., Durham—Hosiery.—John O'Daniel Hosiery Mills, Incptd.; capital \$200,000; A. H. W. F. and J. S. Carr, Jr.

N. C., Hillsboro—Cotton Products.—Bellevue Cotton Mills; double capacity.

N. C., Mebane—Hosiery Yarn.—Durham Hosiery Mills, Durham, N. C.; build 10,000-spindle hosiery yarn mill; J. E. Sirrine, Archt.-Engr., Greenville, S. C.; advises Manufacturers Record; 1-story 300x106 ft. building; combination concrete and standard mill construction; electric drive, humidifiers, fire-protection equipment, steam-heating plant; warehouse and 50 cottages. (Durham Hosiery Mills lately noted advising Manufacturers Record of intention to build mill, invest \$500,000 to \$1,000,000, etc.)

N. C., Charlotte—Woollen Blankets.—Jno. 132x191 and 50x106 ft.; \$100,000; install blankets 16 in. wide; electric power; Robert & Co., Archts., Atlanta, Ga.; T. C. Thompson & Bros., Gen. Contrs., Charlotte, N. C., and Birmingham, Ala.

N. C., Roanoke Rapids—Damask, etc.—Rosemary Mfg. Co.; plans mill additions.

S. C., Anderson—Print Cloths.—Toxaway Mills; ordered 3100 spindles and 64-in. looms additional. (Lately noted increased capital.)

S. C., Cheraw—Cotton Yarn.—Carolina Cotton Yarn Co., Incptd.; capital \$25,000; Robert Chapman, Prest.; H. B. Chapman, Secy.-Treas.

S. C., Cowpens—Sheeting.—Cowpens Mfg. Co., H. W. Kirby, Pres.; increase capital to \$500,000; plans remodeling picker and card-rooms; J. E. Surrine, Archt.-Engr., Greenville, S. C.

S. C., Fort Shouls—Yarn.—Katrine Mfg. Co.; erect plant addition; install additional equipment; double present capacity.

S. C., Newberry—Sheeting.—Mollohon Mfg. Co.; extend and remodel steam-power plant.

S. C., Rock Hill—Tickings.—Blue Buckle Cotton Mills Incptd.; capital \$2,000,000; Alexander Long, Pres.; L. D. Pitts, Treas.; extend weave shed; erect dyehouse and 100 cottages; Gallivan Building Co., Contr.; J. E. Surrine, Engr., both Greenville, S. C. (Superseded recent item.)

S. C., Winnsboro—Tire Cord Fabrics.—Winnsboro Mills, Henry C. Everett, Jr., Treas., Boston, Mass.; invest \$3,000,000 to enlarge plant; erect additional buildings, install new machinery, etc.; Lockwood, Greene & Co., 69 Federal St., Boston, Mass., Mgrs., Archts. and Engrs.

Tenn., Chattanooga—Hosiery.—Browning Hosiery Mills; increase capital from \$25,000 to \$50,000; enlarge plant.

Va., Grottoes—Silk.—Puritan Silk Co., Paterson, N. J.; erect 45x300-ft. brick and concrete construction building; second building next year; machinery for both ordered; electric power; separate motor for each loom.

W. Va., Fairmont—Woolens.—Barnesville Mfg. Co., Gus Mack, Gen. Mgr.; double plant capacity.

W. Va., Janelew.—Burton M. Davission; contemplates installing water and lighting system.

Water-works.

Fla., Crestview.—City; plans installation water-works. Address The Mayor.

La., Lake Arthur.—City; install water-works; voted \$50,000 bonds. Address The Mayor.

Mo., Caruthersville.—City; construct water-works; vote Dec. 2 on \$50,000 bonds. Address The Mayor.

Mo., Kansas City.—City, Chas. Foreman, Asst. Water-works Engr.; build 2-story-and-basement 25x75-ft. boiler-room and repair shop; Albert Turney, Archt., 4147 Mercer Ave.; Louis Breitag & Son Construction Co., Contr., 3701 W. Prospect Place.

Mo., Poplar Bluff.—City; water-works improvements; voted \$4000 bonds. Address The Mayor.

N. C., Mebane.—City, W. S. Crawford, Mayor; construct water-works; vote on \$100,000 bonds. (Lately noted to vote.)

Okla., Medford.—City; construct water-works; vote Dec. 11 on \$100,000 bonds; engine equipment to draw 500,000 gals. daily; vote Dec. 11 on \$25,000 bonds. Address The Mayor.

Okla., Nowata.—City; improve water-works; vote Dec. 2 on \$51,000 bonds; Burns & McDonald, Engrs., Interstate Bldg., Kansas City, Mo.

Okla., Shamrock.—City; construct water-works; Green Construction Co., Contr.

Okla., Wynona.—Wynona Light, Power & Water Co. Incptd.; capital \$50,000; Frank Watson, Wynona; Wm. Watson, Lometa, Tex.; F. M. Overless, Bartlesville, Okla.

S. C., Batesburg.—Commsrs. of Public Works; construct water and sewer systems; 50-ft. dia. concrete reservoir; 150 H. P. boiler; two 500,000 gals. each pump; air-lift plant; pumping sta-

tion; 450 tons 6 to 10-in. C. I. pipe; 10 tons special castings; 29 hydrants; 33 valves; bids until Dec. 18; Nisbet Wingfield, Consrt. Engr., Augusta, Ga. (See Machinery Wanted—Water-works.)

S. C., Denmark.—City; install water-works. Address The Mayor.

Tex., Lubbock.—City; extend water mains; voted \$10,000 bonds. Address The Mayor. (Lately noted contemplated.)

Va., Orange.—City, A. J. Barlow, Mayor; lay cast-iron water mains to Rapidan River; install filtration plant and pumping station; 3 mi. 8-in. cast-iron pipe; 15,000-gal. per hr. filtration plant; two 60 H. P. crude-oil engines; two 250-gal. per minute centrifugal pumps, 450-ft. head; 250-gal. per minute centrifugal pump, 50-ft. head; bids until Dec. 18; Saville & Claiborne, Engrs., Richmond, Va. (See Machinery Wanted—Water-works Equipment.)

Woodworking Plants.

Ala., Montgomery—Woodenware.—Kaufmann-Stern Woodenware Co. Incptd.; capital \$100,000.

Ala., Troy—Veneer.—Troy Veneer & Crate Co.; erect 2-story addition; 48x210-ft. building.

Fla., Avon Park—Barrels, etc.—Avon Mfg. Co. Incptd.; capital \$75,000; L. F. De Bordenave, Pres.; V. E. Lanier, V.P.; A. V. Anderson, Secy.-Treas.

Fla., Key West—Boxes.—Key West Box Co. Incptd.; capital \$100,000; N. Thompson, Pres.; W. P. Archer, V.P.; A. Higgs, Secy.-Treas.

Ky., Louisville—Cooperage.—Western Petroleum Co., Dumonsill St., E. L. Hughes, V.P.; erect cooperage and machine shop.

Ky., Louisville—Furniture.—Sobel-Marx Furniture Co. Incptd.; capital \$30,000; Nathan M. Sobel, Carl J. Marx, Carl Lotz.

La., Alexandria—Cooperage.—Martin Cooperage Co.; construct 7 buildings, including main plant; \$100,000; Gehr Construction Co., Contr.

La., Delhi—Egg Cases.—Cardwell Stave Co., Cardwell, Mo.; install egg-case plant.

La., Waterproof—Staves.—Cardwell Stave Co., Cardwell, Mo.; erect 2-knife slack-barrel stave plant; bandsaw mill.

Md., Baltimore—Cabinets, Mantels, etc.—C. F. Meislahn & Co., 19 Clay St.; erect 4-story, 45x55-ft. building; construction by owner; Zink, Sparklin, Gondolfo, Archts., Munsey Bldg., Washington, D. C.

Miss., Yazoo City—Staves.—C. E. Mann; purchased established plant; remodel; manufacture staves.

N. C., Hillsboro—Woodworking.—Bivens Bros.; construct woodworking plant.

N. C., Rutherfordton—Woodworking.—Citizens' Mfg. Co.; purchased established woodworking and ice plant; will enlarge.

N. C., Charlotte.—Hardwood Mfg. Co. Incptd.; capital \$100,000; S. L. Williams, A. J. Gocking, H. Morrison.

N. C., Statesville—Boxes.—R. V. Brawley; establish box factory; contemplated. (See Machinery Wanted—Box Machinery.)

N. C., Wilmington—Ready-cut Houses.—Aladdin Co., A. R. Bruese, Mgr.; erect plant; purchased 5-acre site.

S. C., Rock Hill—Buggies.—Rock Hill Buggy Co. Incptd.; capital \$10,000; John G. Anderson, J. Wesley Anderson, T. L. Johnston.

Va., Petersburg—Furniture.—E. H. Stewart;

erect 2-story 150x100-ft. brick factory; steel wash; wire glass; concrete floor; slate roof; metal-covered doors; \$15,000.

Fire Damage.

Ga., Dublin.—Dublin Lumber Co.'s plant; loss \$15,000.

Ga., Social Circle.—P. A. Stanton's cotton warehouse; loss \$50,000.

Ky., Cynthiana.—Robert Morrison's residence.

Ky., Drakesboro.—Black Diamond Coal & Mining Co.'s plant; loss \$20,000.

Ky., Sergeant.—W. B. Webb's residence.

La., Lake Charles.—J. J. Utz Co.'s store, owned by Frank Realty Co.; loss \$15,000 to \$20,000.

La., New Orleans.—French Opera-house, Bourbon and Toulouse Sts.; owned by Tulane Educational Fund; loss \$47,000.

Miss., Clarksdale.—C. O. Pixley's cotton gin; loss \$5000.

Mo., De Kalb.—Willis-Lucas Co.'s lumber yard; loss \$25,000; C. N. Willis, Pres., St. Joseph.

N. C., Asheville.—Christ School's dormitory, 6 mi. from Asheville.

N. C., Charlotte.—Burwell & Dunn's building, occupied in part by F. W. Woolworth Five and Ten-cent Store.

N. C., Greensboro.—McAdoo Bldg., owned by Dr. W. J. Meadows; occupied in part by Elm Street Pharmacy; Edwin Nowell, Prop.; loss \$25,000.

N. C., Henderson.—Union Seed & Fertilizer Co.'s plant; loss \$300,000.

Okla., Sayre.—Headlight newspaper office, Masonic Bank, Beckham County National Bank.

Mo., Rich Hill.—Parke Avenue Methodist Episcopal Church South; loss \$25,000. Address The Pastor.

S. C., Edgefield.—M. C. Parker's residence.

S. C., Pickens.—Six Mile Baptist Academy's building; M. Willis, Supt.

S. C., Walhalla.—West Union Oil Mills' warehouses; owned by W. A. Strother, Walhalla, and Jas. Phinney, West Union; loss \$10,000.

Tex., Abilene.—Continental Oil & Cotton Co.'s oil-mill plant; loss \$25,000.

Tex., Cleburne.—James G. Taylor's cotton gin.

Tex., Eden.—L. A. Legg Gin & Mill Co.'s plant.

Tex., Frankston.—School building; loss \$30,000 to \$35,000. Address R. J. Rollins, County Supt. of Education, Palestine, Tex.

Tex., Montalba.—G. W. Hutchison's residence.

Tex., San Antonio.—Duerler Pecan Sheller & Candy Factory's plant, 820 S. Laredo St.; loss from \$20,000 to \$30,000.

Tex., Sealy.—Otto Kohleffer's residence.

W. Va., Bethany.—Beta Theta Pi Fraternity house at Bethany College; loss \$75,000.

W. Va., Keystone.—Frank Pais' garage; loss \$25,000.

W. Va., Morgantown.—United States Window Glass Co.'s plant; loss \$200,000.

BUILDING NEWS

EXPLANATORY.

Buildings costing less than \$10,000 not covered in these reports.

BUILDINGS PROPOSED

Apartment-Houses.

Ala., Birmingham.—John M. Cartwright; remodel building for apartments; 4 suites; \$50,000.

D. C., Washington.—Sheridan Circle Co.; erect \$275,000 apartment at 2242 Q St. N. W.; 75x133 ft.; 6 stories; concrete and terra-cotta; Geo. Oakley Totten, Jr., Archt., 806 17th St. N. W.

La., New Orleans.—Lee Circle Apartment Hotel Co.; erect \$600,000 apartment hotel; 6 stories; colonial style; 200 suites; two, three and four rooms; stores on first floor; individual porches; roof garden; glass-enclosed lobby in rear; 20x120 ft.; Burton & Bender-nagel, Archts., Audubon Bldg. (Previously noted.)

Mo., Kansas City.—McCanles Realty Co., 314 Bonfils Bldg.; erect 3 apartment buildings; 1300-10 E. 36th St.; 3 stories and basement; 40x57 ft.; construction by owner.

Mo., St. Louis.—Dr. Wade H. Nash; erect \$350,000 apartment; 6 stories; fireproof.

N. C., Raleigh.—Professional and Business Women, Miss Minnie Bagwell, Prest.; erect apartment building.

Tex., Houston.—Philip Blumenthal; erect \$20,000 apartment; 2 stories; brick veneer; 37x96 ft.

Va., Norfolk.—M. Boskin; erect \$16,000 apartment-house in Ghent; 2-family; 28x66 ft.; 2 stories; brick; C. M. Woller, Archt., Dixon Bldg.

Va., Richmond.—L. R. Hartsook, Archt., American National Bank Bldg.; preparing plans to remodel and erect wing to apartment-house on Grove Ave.; \$40,000; brick.

W. Va., Charleston.—A. Boiarsky; erect \$12,000 apartment; 2 stories; brick veneer.

W. Va., Charleston.—W. Ramze; erect \$15,000 apartment; 2 stories; brick and tile.

Association and Fraternal.

La., Alexandria.—Ancient Free and Accepted Masons; erect \$250,000 temple.

Ky., Dayton.—Dayton Masonic Temple Co. Inceptd.; \$35,000 capital; erect building.

La., Crowley.—D. E. Lyons; remodel interior Lyons Opera-house for lodge, theater and business building; lately noted; 75x150 ft.; 3 stories; composition roof; wood floors; heating plant; city lights; bids opened about Jan. 1; \$70,000. Address C. W. Lyman. (See Machinery Wanted—Heating Plant.)

Md., Frederick.—Ancient Free and Accepted Masons, Union Bridge Lodge; reported to erect temple.

Mo., Hannibal.—Fraternal Order of Eagles; erect \$100,000 theater and lodge building.

Okla., Sayre.—Ancient Free and Accepted Masons; rebuild structure noted damaged by fire.

S. C., Gaffney.—Independent Order of Odd Fellows, Buford Street Lodge No. 8802; considering brick building.

Tex., Waco.—Ancient, Free & Accepted Masons, W. B. Pearson, Grand Secy.; erect addition and improve building; 2 stories; extend basement under sidewalks; enlarge auditorium; provide space for lobby and elevators; vacuum cleaning, heating, ventilating and clock system; mezzanine on 3d floor; 2 foyers; roof garden; \$410,379; Milton W. Scott & Co., Archts.

Va., Lynchburg.—Lynchburg Lodge No. 17, Independent Order of Odd Fellows; erect temple.

Va., Lynchburg.—Benevolent Protective Order of Elks; remodel building; \$25,000; brick and concrete; hardwood and tile floors; plastering, decorations, light fixtures, shower baths, solarium, etc.; remodel heating plant; bids opened about Dec. 1; Stanhope S. Johnson, Archt., People's Bank Bldg. (Previously noted.)

Bank and Office.

Ala., Fairfield.—Tennessee Land Co.; reported to erect office building.

D. C., Washington.—Farmers and Mechanics' National Bank of Georgetown; considering erecting \$200,000 building; 60x90 ft.; 3 stories; 40x57 ft.; construction by owner.

Fla., Tampa.—Citizens-American National Bank, Dr. Louis A. Bize, Prest.; enlarge building for bank.

Fla., Tampa.—W. F. Stovall; erect office building; 5 stories; reinforced concrete; F. L. Bonfoey, Archt.

Ga., Atlanta.—Johnson Paint Co.; erect 3-story office building and 1-story storage building; \$100,000.

Ga., Atlanta.—Chamber of Commerce Industrial Promotion Committee, Jas. L. Logan, Chrmn.; promoting erection of office building for manufacturers' agents and traveling men.

Md., Bethesda.—Bank of Bethesda, Walter B. Tuckerman, V.-P.; erect building.

Mo., Barnett.—Bank of Barnett, W. W. Gillham, Prest.; erect \$18,000 building; 2 stories and basement; 27x77 ft.; brick; stone trim; composition roof; E. E. Bullot, Archt., 1202 Scarritt Bldg., Kansas City.

Md., Chestertown.—Bank of Maryland; erect \$18,500 bank building.

Miss., Quitman.—Bank of Quitman; erect building; 2 stories; brick.

Mo., Kansas City.—Dr. W. S. Woods Estate; erect building to be occupied in part by Twelfth Street State Bank.

N. C., Asheville.—Herbert D. Miles; remodel 3-story building; white-glazed tile and pressed-brick front; stores on first floor; erect 3 additional stories.

Okla., Sayre.—Beckham County National Bank; rebuild structure noted damaged by fire.

S. C., Columbia.—South Carolina Baptist Assn., Rev. Charles D. Burts and others; erect addition and remodel building for offices; 2 stories; roof; storeroom on first floor.

S. C., Denmark.—American Telephone & Telegraph Co.; erect \$75,000 to \$100,000 office building; 3 stories; lunchroom; employment room; operating-room, etc.

S. C., Greenville.—Southeastern Life Insurance Co., T. Oregon Lawton, Jr., Prest.; erect office building.

Va., Lynchburg.—Law Building Co.; remodel building for offices and stores; 6 stories and basement; store fronts; corridors; composition and tile floors; plumbing; lighting fixtures; plastering, etc.; remodel heating plant; Otis high-speed elevator; \$30,000; Stanhope S. Johnson, Archt., People's Bank Bldg.; plans ready for bids Dec. 12.

Va., Richmond.—Southern & Society of Virginia, Alfred Price, Prest.; erect \$25,000 office building; 3 stories; 30x130 ft.; brick; C. I. Russell, Archt., Virginia Union University.

Churches.

Ga., Rome.—South Broad Methodist Church Building Comm.; considering erecting \$15,000 building.

Mo., Kansas City.—St. Elizabeth Catholic Church, Rev. Edw. J. Hays, Pastor; erect church; 3 stories and basement; 62x130 ft.; parochial school; 2 stories and basement; 68x108 ft.; assembly hall, 75 ft. long; gymnasium in basement; also erect parochial residence; native stone; cut-stone trim; \$160,000; White & Dean, Archts., 311 Bellefontaine Ave., receiving bids on superstructure. (Lately noted.)

Mo., Rich Hill.—Parke Avenue Methodist Episcopal Church South; rebuild structure noted damaged by fire. Address The Pastor.

Mo., Springfield.—Campbell Street Methodist Episcopal Church, Rev. W. H. Winton, Pastor; erect building.

N. C., Asheville.—Methodist Church, Rev. J. O. Banks, Pastor; erect building at Emma, N. C.

N. C., Asheville.—Central Methodist Church, Rev. E. K. McLarty, Pastor; enlarge building.

Okla., Altus.—Episcopal Church; erect \$25,000 building. Address The Rector.

Okla., Altus.—Methodist Church; erect \$50,000 structure. Address The Pastor.

Okla., Altus.—Baptist Church; erect \$75,000 to \$100,000 building. Address The Pastor.

Okla., Vinita.—Methodist Church; erect building. Address The Pastor.

Tenn., Columbia.—First Christian Church; erect building; auditorium to seat 1000; Sunday-school rooms and kitchen in basement. Address The Pastor.

Tex., Fort Worth.—Fort Worth Philanthropic Assn., P. P. Pierce, Prest.; contemplates expenditure of \$1,000,000 to construct group of buildings in connection with First Baptist Church to include \$300,000 girls' home; 5 stories; brick and concrete; 500 rooms; \$100,000 home for working women; 100 rooms; \$200,000 building for men; \$150,000 boys' home; 7 stories; etc.

Tex., Orange.—First Methodist Church; erect \$75,000 building; Thomas Howell, Archt.

Va., Lynchburg.—Rivermont Ave. Methodist Church, Rev. J. Calloway Robertson, Pastor, 1110 Early St.; erect \$20,000 Sunday-school building; 3 stories; brick and stone; Stanhope S. Johnson, Archt., People's Bank Bldg.

Va., Richmond.—German Evangelical Church, Rev. Oscar Guthe, Pastor, 501 N. Lombardy St.; erect \$20,000 building; Carl M. Lindner, Archt., American Bank Bldg. (Previously noted.)

W. Va., Dunbar.—Baptist Church; erect building. Address The Pastor.

W. Va., Clarksburg.—Christ Episcopal Church, Rev. J. T. Carter, rector; erect \$100,000 building.

City and County.

Ga., Atlanta.—Auditorium.—City, J. C. Little, Chrmn. of Comm.; expend \$25,000 to improve auditorium.

S. C., Charleston.—Jail.—County Comms.; improve jail; install heating plant, toilets and baths, construct concrete floors, etc.; \$27,000; Thos. McCarroll, Contr.

Dwellings.

D. C., Washington.—Phillip M. Julian, Commercial National Bank Bldg.; reported preparing plans for 34 dwellings and garages; 20x40 ft.; 3 stories; \$700,000.

D. C., Washington.—Dr. Camp Stanley, Faragut Apartments; erect \$50,000 residence on Massachusetts Ave.; brick and limestone; 25x65 ft.; 4 stories; Wagaman & Ray, Archts., 1147 Connecticut Ave. (Lately noted.)

D. C., Washington.—Charles D. Sager, 1409 New York Ave. N. W.; erect 20 bungalows in Armistead Park; 6 to 8 rooms; ultimate plans call for 200.

Fla., Boynton.—Frank Mansen, Philadelphia, Pa.; reported to erect residence.

Fla., Clearwater.—Walter Newcomb, Largo, Fla.; erect bungalow; 31.6x56 ft.; cypress roof; hardwood floors; construction by owner.

Fla., Gainesville.—Mrs. Jas. H. Grover; consider erection residence; probably concrete.

Fla., Miami.—Kirkland Improvement Co.; erect 6 dwellings; \$13,000.

Fla., Vero.—G. C. Bartlett; erect residence; 2 stories.

Ga., Summerville.—H. M. Hawkins; erect 3 bungalows.

Ga., Tifton.—Tifton Home Building Co., J. J. Golden, V.-P.; erect 3 dwellings.

Ky., Cynthiana.—Robert Morrison; rebuild residence noted damaged by fire.

La., Shreveport.—P. A. Lancaster, Seattle, Washington; reported to erect 6 dwellings; 6 rooms.

Md., Baltimore.—Williams & Armiger, 36 Franklin Bldg.; erect 7 dwellings, Piedmont and Hilton Aves.; 2 stories; 20x30 ft.; brick; composition roof; wood floors; steam heat; electric lights; \$3500 each; plans and construction by owners. (Lately noted.)

Md., Baltimore.—Realty Constr. Co., Equitable Bldg.; erect 10 dwellings, Greenmount Ave.; 2½ stories; brick; \$40,000; S.H. Buckler & Fenhangen, Archts., 11 E. Pleasant St. *

Md., Chevy Chase.—Frank B. Devereaux, National Savings & Trust Co. Bldg., Washington, D. C.; erect \$14,500 residence; 2½ stories and basement; stucco on frame; slate roof; oak floors; hot-water heat; electric lights; W. R. Lamar, Archt., 1650 Fuller St. N. W., Washington. Address owner.

Md., Hagerstown.—Mrs. Abbott Jones, Frederick St.; erect residence; 2 stories; frame.

Md., Hagerstown.—Dr. W. R. Bender, W. Franklin St.; erect residence; 3 stories; brick.

Mo., St. Louis.—J. E. Cornell; erect 2-story and basement residence; 34x40 ft.; brick; J. W. Leigh, Archt., Odd Fellows' Bldg., taking bids.

Mo., St. Louis.—R. P. Turbeville; erect residence.

N. C., Carthage.—Mrs. C. L. Hayes; erect residence.

N. C., Goldsboro.—Goldsboro Building & Housing Corp.; erect 20 dwellings.

N. C., Hickory.—A. L. Deal; erect residence; 2 stories and basement; stone foundation; metal roof; hardwood floors; electric lighting; Q. E. Herman, Archt.

N. C., Hickory.—Henry Leonard; erect residence 12th St. and 13th Ave.; 2 stories and basement; reinforced concrete; hardwood floors; electric lighting; Q. E. Herman, Archt.

N. C., Hickory.—Chas. W. Bagby; remodel and erect addition to residence at 1805 9th Ave.; Q. E. Herman, Archt.

Okl., Oklahoma City.—Wm. Heralson; erect \$16,500 residence; 2 stories; frame.

Okl., Tulsa.—J. C. Reddin; erect 2 residences and garages; \$11,000.

S. C., Spartanburg.—Charles Christman, Herzog Apartments; erect residence.

Tex., Fort Worth.—Broadmoor Land Co., C. D. Lusk, Pres.; erect number of dwellings.

Tex., San Antonio.—C. S. Reynolds; erect number of dwellings.

Tex., Sealy.—Otto Kohleffel; rebuild dwelling reported damaged by fire.

Va., Alexandria.—L. M. Johnston; erect 30 detached dwellings in North Rosemont; hollow tile; 7 to 10 rooms; 1 and 2 baths; garage.

Va., Chatham.—D. T. Williams; erect \$12,000 residence; brick; Heard & Chesterman, Archts., Arcade Bldg., Danville.

Va., Covington.—Forrest Payne; erect \$15,000 residence; 2 stories; 45x36 ft.; hollow tile and stucco; Heard & Chesterman, Archts., People's Bank Bldg., Lynchburg.

Va., Danville.—E. P. Magee; erect \$10,000 residence; 2½ stories; 35x50 ft.; brick; Heard & Chesterman, Archts., Arcade Bldg.

Va., Danville.—S. Sonnenberg; erect residence; 2 stories; 23x60 ft.; brick; Heard & Chesterman, Archts., Arcade Bldg.

Va., Norfolk.—M. Levin, Main St.; erect \$15,000 residence; 2 stories; 27x60 ft.; brick and timber; tile roof; oak floors; hot-water heat; \$1500; city lighting; hardwood floors; interior tile; wood block floors; concrete floors; city lighting; heating plant; \$1500; hardwood floors; interior tile; concrete floors; C. M. Weller, Archt., 224 Dickson Bldg.

Va., Norfolk.—T. J. East, Farmers' Manufacturing Co.; erect \$15,000 residence; 2 stories; 26x42 ft.; brick; slate roof; oak floors; interior tile; concrete floors; C. M. Weller, Archt., 224 Dickson Bldg.

Va., Richmond.—Ieth Lorton, Jefferson Hotel; erect \$30,000 residence; 2 stories; 40x40 ft.; brick; H. Carl Messerschmidt, Archt., Mutual Bldg.

Va., Richmond.—P. J. Beattie; erect 2-family residence; 2 stories; 29x58 ft.; frame and stucco; Hallett & Pratt, Archts., Mutual Bldg.

W. Va., Charleston.—Chamber of Commerce, L. H. Massey, Chrmn. of Comm.; promoting \$300,000 company to erect dwellings.

W. Va., Charleston.—Max Cohen; erect \$11,000 residence; 2 stories; brick and tile; 14 rooms.

W. Va., Clarksburg.—Chas. E. Lambert; erect 8 California bungalows; Montgomery & Nibarger, Archts., Los Angeles, Cal.

W. Va., Welch.—J. C. Summers; erect \$25,000 residence; 2 stories; 30x10 ft.; brick; A. F. Wysong, Archt., Princeton, W. Va.

W. Va., Welch.—J. M. Crockett; erect residence.

W. Va., Welch.—A. C. Hufford; erect residence.

W. Va., Welch.—W. H. McCulloch; erect residence.

Government and State.

D. C., Washington.—Storage.—Bureau of Yards and Docks, Navy Dept., C. W. Parks, Chief; complete storage plant; specification 4035; construction by Navy-yard force. (Lately noted.)

Hospitals, Sanitariums, Etc.

Ala., Troy.—Pike County Masonic Hospital; erect building.

Md., Crisfield.—Major R. R. Norris, Chief Surgeon; erect hospital; brick, tile, concrete and wood; Herbert G. Jory, Archt., Munsey Bldg., Baltimore.

Tex., Houston.—Methodist Episcopal Church South; purchased Norsworthy Hospital; plans

to expend \$200,000 for remodeling and equipment. Dr. R. W. Adams interested.

Hotels.

Ala., Huntsville.—Thomas T. Terry; erect \$150,000 hotel; 5 stories; 4 stories on 1st floor; hotel above.

Ark., Glenwood.—K. E. Hallman; erect 65x100-ft. hotel; ordinary construction; joist-floor construction; steam heat; electric lights; Witt, Seibert & Halsey, Archts., Texarkana, Ark. (Lately noted.)

Fla., Melbourne.—Hotel Carleton Co. Incptd.; \$25,000 capital; L. G. MacDowell, Pres.

Ky., Frankfort.—Lieut.-Col. Geo. Weitzel; erect 100-room hotel; 42 baths; 4 stories; concrete and stone; metal tile floors; limestone trim; bids until Dec. 18; C. C. & E. A. Weber, Archts., 3d and Walnut Sts., Cincinnati, O. (Lately noted.)

Ky., Louisville.—Market Street Retail Merchants' Assn., C. D. Hauger, Pres.; promoting \$1,000,000 hotel and commercial building.

La., De Ridder.—Hudson River Lumber Hotel; reported to erect \$100,000 hotel.

Miss., Jackson.—Ruleville Hotel Co. Incptd.; \$75,000 capital; J. W. Rule and others.

Mo., Kansas City.—McCanles Realty Co., 34 Bonfils Bldg.; erect \$50,000 apartment hotel; 3 stories and basement; 36x118 ft.; day labor; Rowland Bros., Contrs. for masonry.

S. C., Greenville.—Hotel Imperial, C. S. James, Proprietor; erect 9 to 11-story annex; 50x50 ft.; 75 to 100 rooms; fireproof; steel frame or reinforced concrete and steel; connected to main building by steel bridge; \$75,000 to \$100,000. (Lately noted.)

Va., Roanoke.—Phillip M. Julian, Commercial National Bank Bldg., Washington, D. C.; reported preparing plans for hotel; 75x200 ft.; 10 stories and basement; limestone, brick and terra-cotta; \$1,750,000.

Miscellaneous.

Fla., Jacksonville.—Fair.—Florida State Fair and Exposition Assn., D. D. Upchurch, V.-P.; expend \$150,000 for indebtedness, construction racetrack, stables, clubhouse, etc.

Md., Baltimore.—Community Building.—Hampden-Woodberry Neighborhood Assn.; erect \$50,000 community building; contain dance hall, billiard-rooms, bowling alleys, rooms for receptions and meetings, etc.; Rev. Chas. T. Hewitt, \$52 W. 37th St.; Arnold Geering and others, Building Comm.

Mo., De Kalb.—Lumber Yard.—Willis-Lucas Lumber Co., C. N. Willis, Pres., St. Joseph; rebuild lumber yard noted damaged by fire at loss \$25,000.

N. C., Charlotte.—Clubhouse.—Park Road Home Demonstration Club, Mrs. Harvey E. Hunter, Pres.; erect clubhouse.

N. C., Raleigh.—Cafeteria.—Professional and Business Women, Miss Minnie Bagwell, Pres.; erect cafeteria.

S. C., Gaffney.—Undertaking Establishment. Dr. C. L. Norris; erect 2-story brick building for undertaking establishment.

Tex., Waco.—Clubhouse.—Spring Lake County Club, Tom F. Bush, Pres.; erect \$50,000 clubhouse.

Va., Newport News.—Memorial.—E. J. Graff, 219 25th St.; erect \$15,000 memorial building; 1 story; 35x75 ft.; hollow tile; McKee, Williams & Pettibone, Archts., 225 28th St.

Railway Stations, Sheds, Etc.

Miss., Laurel.—New Orleans & Northeastern R. R., Curtis Dougherty, Chief Engr., Lines West, Cincinnati, Ohio; erect \$85,000 freight depot; fireproof; probably brick; also repair passenger depot.

Mo., Cape Girardeau.—St. Louis & San Francisco R. R., F. G. Jonah, Ch. Engr., St. Louis; erect \$20,000 passenger station; brick; R. C. Stephens, Archt., St. Louis.

Schools.

Ala., Bessemer.—Board of Education, M. J. Brooks, Pres.; erect high school; city votes in Jan. on \$200,000 bonds. (Lately noted.)

Ala., Gadsden.—City votes Jan. 6 on \$250,000 school bonds; J. H. Disque, Pres., School Board. (Lately noted.)

Ala., Huntsville.—Madison County School Board; erect high school.

Ala., Oak Grove.—Jefferson County Board of Education; erect high-school addition; \$11,000; D. O. Whilldin, Archt., Title Guarantee Bldg., Birmingham.

La., Lake Charles.—School Dist. No. 17; erect school auditorium; \$48,000; considering issuing bonds. Address Calcasieu Parish School Board.

Ga., Atlanta.—Oglethorpe University, Dr. Thornwell Jacobs, Pres.; erect \$50,000 athletic stadium, gift of Harry P. Hermance and wife.

Ga., Preston.—Preston Consolidated School Dist. Trustees; erect \$15,000 school; bonds voted.

Ky., Owensboro.—Sisters of St. Frances Academy; erect \$35,000 addition; 44x80 ft.; 3 stories and basement; brick and concrete; asbestos roof; steel beam and joist construction; auditorium to seat 1000, classrooms, recreation-rooms, etc.; C. W. Kimberlin, Archt.; L. A. Monarch, Owensboro, R. F. D. No. 1, Supt. of Construction. (Lately noted.)

Ky., Paris.—City votes Dec. 27 on \$35,000 bonds for school additions. Address The Mayor.

La., De Ridder.—City votes Jan. 13 on \$90,000 bonds to erect high school. Address School Board.

La., Glenmora.—Rapides Parish School Board, J. W. Bolton, Pres.; erect 1-story shop building for Glenmora High School; bids opened Dec. 1; plans and specifications at office Duncan & Barron, Archts., 120 Murray St., Alexandria, La. (Previously noted.)

La., Longville.—Beauregard Parish School Board, De Ridder; erect \$10,000 building; 2 stories; frame; auditorium, classrooms, laboratory, etc.; Neild & Oschner, Archts., Shreveport.

La., Plain Dealing.—School Board; receives bids until Jan. 1 to erect school building; 17 rooms; 2 stories; plans and specifications at office Edward F. Neild, Archt., Shreveport, and School Board, Benton, La. Address W. A. Fortson, Benton.

Md., Jarrettsville.—Harford County School Commrs., Milton Wright, Supt., Belair, Md.; erect \$50,000 building; 2 stories; 60x70 ft.; brick; J. B. Hammie, Archt., City Bank Bldg., Jarrettsville.

Md., Salisbury.—Wicomico County Board of Education, J. M. Bennett, Secy.; erect English school; bids until Dec. 19.

Miss., Gulfport.—Junior College for Young Women, J. C. Hardy, Business Mgr.; erect academic building; 200 ft. long; 2 stories; administration offices; auditorium with seating capacity 400; 19 classrooms; library 42x33 ft.; artroom; 3 laboratories, etc.; also dormitory; 3 stories; 202x106 ft.; dining-room to accommodate 400 pupils; gymnasium 202x100 ft.; reception room 60x35 ft.; 32 suites; 12 separate rooms with bath; sun parlors 35x20 ft.; dormitory accommodations for 150; stucco and hollow tile; asbestos shingle or tile roof; pine floors; central steam heating plant, probably oil-burning; electric lights, possibly own dynamo; 1 hand-power elevator; contract let about Dec. 15; Rathbone De Buys, Archt.,

New Orleans, La. Address owner. (Previously noted.)

Mo., Columbia.—Christian College; erect 4-story-and-basement dormitory; 92x155 ft.; brick; stone trim; Shepard & Wiser, Archts., R. A. Long Bldg., Kansas City.

Mo., Kansas City.—J. C. Nichols, 911 Commerce Bldg.; erect building for riding academy; 1 story; 50x100 ft.; frame and stucco; leased by R. L. Davis and Howard Leary; E. B. Delk, Archt., 50th St. and Ward Parkway; construction by owner.

Mo., Richmond.—Board of Education; rebuild 1-story gymnasium; 50x70 ft.; brick; stone trim; composition roof; maple floors; \$10,000; receiving bids; J. H. Felt & Co., Architects, Grand Avenue Temple Bldg., Kansas City. (Lately noted.)

Mo., St. Louis.—Chaminade College, Rev. Mr. Waskasser, Pres., Clayton, Mo.; erect \$250,000 building; brick; V. J. Klutho, Archt., Syndicate Trust Bldg., St. Louis; bids about Feb. 1.

N. C., Asheville.—Christ School Trustees; rebuild dormitory noted damaged by fire.

N. C., Fayetteville.—Board of Trustees, J. A. Oates, Chmn.; enlarge and improve graded schools; also plan erection of high school.

N. C., Lexington.—City voted \$35,000 bonds to erect school building; E. B. Craven, Chmn. Board of School Comms. (Lately noted.)

N. C., Mebane.—City will issue \$25,000 bonds to erect addition to high school. Address W. S. Crawford, Mayor.

Okla., Ardmore.—City voted \$350,000 bonds to erect Junior High School. Address Board of Education. (Lately noted.)

Okla., Hitchita.—Board of Education Consolidated School Dist. No. 27, Adam Pence, Secy.; bids until Dec. 15 for \$40,000 school; 1 story and basement; 100x114 ft.; brick; stone trim; plans and specifications at office H. O. Valeur & Co., Archts., 705 Phoenix Bldg., Muskogee. (Lately noted.)

Okla., Oklahoma City.—Board of Education, J. G. Stearley, Chk., Administration Bldg.; erect \$249,000 Classen High School; \$258,000 Capitol Hill School; \$254,700 Webster School; each building 40 rooms, gymnasium and swimming pool; Holmboe Construction Co., Contr.; A. F. Birns, plumbing, \$32,470; both Oklahoma City; Minor Woodling, Kansas City, Mo., lowest bidder at \$57,530 for heating and ventilating; Layton-Smith & Forsyth, Archts., Southwest Reserve Bank Bldg., Oklahoma City; city voted Dec. 9 on \$820,000 bonds. (Lately noted.)

S. C., Charleston.—Board of Trustees, School Dist. No. 4, Room 508, People's Office Bldg.; erect 4-room building; 134x80 ft.; frame; tin roof; wood floors; stoves; auditorium to seat 250; bids until Dec. 10; plans and specifications at office Mr. Crawford, North Charleston. (Lately noted.)

S. C., Pickens.—Six Mile Baptist Academy, Mr. Willis, Supt.; rebuild structure noted damaged by fire.

Tenn., Knoxville.—Lincoln Memorial University; erect gymnasium and swimming pool; \$25,000.

Tex., Frankston.—Anderson County Board of Education, R. J. Rollins, Supt., Palestine, Tex.; rebuild school noted damaged by fire at loss \$30,000 to \$35,000.

Tex., San Antonio.—Board of Education; erect 4-room fireproof building in Prospect Hill.

Tex., Taylor.—Board of Education, J. E. Walls, Supt.; plans to expend \$300,000 to erect high school and 2 ward schools; vote on bonds in Jan., 1920. (Lately noted.)

Va., Danville.—Riverside and Dan River Cotton Mills, E. B. Wood, Ch. Engr.; erect \$12,000 grade school at Schoolfield; 138x58

ft.; 2 stories; brick; E. R. James, Archt., Dudley Bldg.

Va., Williamsburg.—Board of Education; erect \$20,000 building for colored pupils; 12 rooms; frame; tin or slate roof; wood floors; hot-air heat; Carnel & Johnston, Archts., Chamber of Commerce Bldg., Richmond. (Lately noted.)

W. Va., Huntington.—Board of Education, W. F. Kincaid, Pres.; erect \$22,000 colored school; 2 stories; hollow tile and stucco; rejected bids; A. F. Wysong, Archt., Princeton. (Previously noted.)

W. Va., Morgantown.—University of West Virginia, F. R. Trotter, Pres.; erect stadium; sent \$800; steel and concrete; \$15,000.

Stores.

Ala., Birmingham.—C. T. Crooks; erect \$75,000 building; brick.

Ala., Mobile.—Van Antwerp Drug Co.; reported to remodel store and office building; \$25,000.

Ark., Little Rock.—C. J. Lincoln Co., Inc.; erect store building; 6 stories and basement; steel; fireproof.

D. C., Washington.—Oscar Vogt, Home Life Bldg.; preparing plans for store and apartment building at 8th and F Sts.; 60x117 ft.; 2 stories; brick; \$35,000.

D. C., Washington.—Wm. Goldberg; expend \$15,000 to remodel store and dwelling; ordinary construction; tin roof; steam heat; A. P. Clark, Jr., Archt., 816 14th St. N. W. (Lately noted.)

Fla., West Palm Beach.—Ray Bros.; erect \$60,000 store building; 3 stories.

Ga., Atlanta.—Massell Construction Co.; erect 2-story building, Luckie and Bartow Sts.

Ga., Atlanta.—Massell Realty Co.; erect 8 store buildings.

Ga., Columbus.—Jno. B. McCollum; erect \$50,000 building to replace burned structure; 2 stories; 25x100 ft.; pressed brick; plate-glass show windows; tile entrance; first floor, stores; upper, photographic gallery; Roy Dunn, Archt. (Lately noted.)

La., Lake Charles.—John Khouri; contemplates erecting brick business building.

La., Lake Charles.—Ignazio Capo; erect store building; 2 stories; brick.

Miss., Quitman.—R. H. Donald; erect \$10,000 building; 60x90 ft.; concrete; composition roof; concrete floors; concrete sidewalk; P. J. Krouse, Archt. Address owner. (Lately noted.)

Miss., Yazoo City.—E. L. Martin; erect store building; 1 story; brick and tile; 41x75 ft.

Mo., St. Louis.—St. Louis Union Trust Co.; repair store building; \$20,000.

N. C., Statesville.—L. B. Bristol; erect 5 business buildings.

S. C., Columbia.—M. L. Kinard Co.; improve store building.

S. C., Greenville.—K. S. Conrad; erect 2-story brick building; 3 storerooms and warehouse.

Tenn., Chattanooga.—Morrison Co., W. N. Hudiburg, Pres.; contemplates improvements and additions to 3 buildings; install store fronts, fixtures, etc.; \$50,000.

Tenn., Chattanooga.—Harry Wise; erect 2-story brick and concrete building.

Tenn., Chattanooga.—Kalanis Bros.; erect 2-story brick building; \$12,000.

Tex., Fort Worth.—C. C. Peters; considering erecting business buildings.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

S. C., Greenville.—Chas. S. Allen; remodel Beattie Bldg.; install front, etc.

Tex., San Antonio.—F. W. Woolworth Co., New York; J. B. Hollis, Dist. Representative, Dallas; considering erection 4 to 8-story fire-proof building.

Tex., San Antonio.—R. C. and Mark Wright; erect 2 or 3-story business building.

Va., Lynchburg.—Edwin K. Phillips; erect \$25,000 store and apartment; 3 stories; Beacon Phillips, Archt., Law Bldg.

Va., Portsmouth.—E. C. Ford and Archibald Ogg; erect \$32,000 store building; brick; 2 stories; 2 stores.

W. Va., Huntington.—J. Lubin; erect store for Paul Dober; 45x200 ft.; 5 stories.

W. Va., Huntington.—Byrd Gwinn; erect \$40,000 building; 3 stories and basement; 30x160 ft.; brick; Meador & Handloser, Archts.

W. Va., Huntington.—F. F. Starcher; plans 3-story extension to building for Dickinson & Estes; 60x90 ft.

Theaters.

D. C., Washington.—Southern Aid Society of Virginia, V. L. Jordon, Secy., Richmond, Va.; erect building for moving-picture theater, offices and apartments; 90x40 ft.; 4 stories and basement; \$60,000; Hatton & Co., Archts., 12th and U Sts., Washington.

Fla., St. Augustine.—St. Augustine Amusement Co., Frank Genovar, Mgr.; erect fire-proof theater; seating capacity 800.

Ga., Athens.—James F. Shehane; reported to erect \$200,000 theater.

La., New Orleans.—Orpheum Consolidated Theater Co., Incptd., main offices New York and Chicago; \$50,000,000 capital; Martin Beck, Prest., New York; erect \$750,000 vaudeville theater.

Miss., McComb.—L. D. Dickerson and J. E. Alford; erect 3-story theater; seating capacity 1500.

Okl., Oklahoma City.—Overholser Theater Co.; remodel theater; \$60,000; Kennerly & Stiegemeyer, Archts., Benoit Bldg., St. Louis.

Tenn., Chattanooga.—Miller Bros. Co.; erect \$20,000 moving-picture theater.

Tex., Amarillo.—Ray, Britain & Johnson; rebuild Olympic Theater, lately noted damaged by fire.

Va., Charlottesville.—Kendler-Zimmerman Co.; erect theater.

BUILDING CONTRACTS AWARDED

Apartment-Houses.

Ala., Langdale.—West Point Mfg. Co.; erect apartment building; telephone in each apartment; West Point Iron Works, Contr., West Point, Ga.

Fla., St. Petersburg.—W. H. Huston; erect \$15,000 apartment; 3 stories; 1st story, concrete blocks and brick; 2d and 3d, wood; Reynolds asphalt-shingle roof; 44x8x64 ft.; wood floors; electric lights; Geo. Feltham, Archt., Bruce Smith Bldg.; S. J. Marton, Contr., 260 3d Ave. (Lately noted.)

Tex., Fort Worth.—A. R. Carns; erect \$22,500 apartment; brick; K. H. Muse, Contr.

Tex., Fort Worth.—P. S. Kolas; erect 2 apartment buildings; brick; \$26,000; R. D. Swor, Contr.

Va., Hampton.—W. W. Richardson; erect \$150,000 apartment and store building, 2 stories; 25x80 ft.; Phillip F. Kline, Contr., 333 Chesapeake Ave., Newport News, Va.

Va., Norfolk.—Sol Friedberg; erect apartment; reinforced concrete; 10 suites; Neff & Thompson, Archts., Seaboard Bank Bldg.; R. R. Richardson & Co., Contrs.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Warehouses.

Ga., Atlanta.—Johnson Paint Co.; erect 1-story storage building. (See Bank and Office.)

Ky., Louisville.—Western Petroleum Co., E. L. Hughes, V.-P.; erect 3-story warehouse in connection with garage, cooperage plant, machine shop, boiler plant, pumphouse, etc.; 75x150 ft.; total cost \$300,000.

Md., Baltimore.—Thos. Mullan, 4001 Greenmount Ave.; erect warehouse and 3 garages, Taylor St., southwest of Bartlett Ave.; former, 50x100 ft.; 2 stories, brick; latter, 1 story, 36x130 ft.; slate roof, steam heat; \$12,000; Plaza Engr. Co., Archt.

Md., Baltimore.—Fidelity Storage Co.; erect warehouse, 2104-2108 Maryland Ave.; 50x125 ft.; 67.5 ft. high; reinforced concrete; brick and stone; \$135,000; Morse & Dunford, Archts.

Mo., Kansas City.—T. M. James & Sons China Co.; remodel building for warehouse; 7 stories and basement; brick; 56x142 ft.

Mo., North Kansas City.—Midland Flour Milling Co.; erect grain warehouse; 42x150 ft.; 300,000 bu. capacity; also 14 storage tanks; 2 stories and basement; reinforced concrete and structural steel; composition roof; Sherman Engineering Co., Engr., 1019 New York Life Bldg. (Lately noted.)

Mo., St. Joseph.—Western Tablet Co.; erect 1-story and basement warehouse; 52x300 ft.; brick; stone trim; composition roof; Rudolph Meier, Archt., Lincoln Bldg.

S. C., Allendale.—Allendale Wholesale Grocery Co., Leroy Wilson, Prest.; erect warehouse.

S. C., Columbia.—Murray Drug Co., Dr. W. J. Murray, Prest.; remodel buildings for warehouse.

Tex., Fort Worth.—Toombs Sash & Door Co.; erect \$12,000 warehouse; 1 story; 100x150 ft.; galvanized iron.

Va., Petersburg.—Seward Trunk & Bag Co.; erect \$35,000 warehouse; 2 stories; 30x26 ft.; reinforced concrete and brick; F. A. Bishop, Archt., Sycamore St.

W. Va., Huntington.—Groves-Thornton Hardware Co.; erect \$25,000 building; 4 stories; brick; 70x90 ft.; composition roof; wood floors; gas heat; electric lights; contract let Feb., 1920; W. B. Smith, Archt., R. & P. Bldg. (Lately noted.)

Bank and Office.

Ala., Albany.—Central National Bank; improve interior bank; install 2 burglar-proof vaults; enlarge banking-room; \$10,000; Geo. W. Muller Bank Fixture Co., Contr., Atlanta, Ga.

Ga., Cordele.—Cordele Bank & Trust Co.; install marble fixtures, etc.; \$10,000; Geo. W. Muller Bank Fixture Co., Contr., Atlanta.

Ky., Somerset.—Citizens' National Bank, C. E. Hill, Cash.; remodel buildings for bank and offices; 39x63 ft.; brick; 3 stories; stone front for 1st story; tile or terrazzo lobby; steam heat; \$12,000; Richard M. Bates, Jr., Archt., Huntington, W. Va.; Geo. L. Elliott, Contr., Somerset, Ky. (Lately noted.)

S. C., Charleston.—Dime Savings Bank; expend \$26,000 for fixtures; Geo. W. Muller Bank Fixture Co., Contr., Atlanta, Ga.

Churches.

Ala., Montgomery.—Old Ship Church; erect \$35,000 building; 68x14 ft. asbeso-shingle roof; concrete and wood floors; steam heat; \$2500; electric lights, \$950; Okel & Cooper, Archts., Vandiver Bldg.; James Alexander, Contr.

Contr., Upper Wetumpka Road. Address Rev. W. W. Matthews, pastor, 112 Mildred St. (Lately noted.)

Okl., Cushing.—Presbyterian Board; erect \$40,000 building; 64x78 ft.; 2 stories and basement; brick and stone; wood doors; A. C. Davis, Archt., Shawnee, Okla. Address P. F. Gross, 412 S. 1st St., Guthrie, Okla., who has contract on percentage basis. (Lately noted.)

Va., Richmond.—Calvary Baptist Church; erect \$60,000 building; 94.6x94.6 ft.; concrete, brick and steel; tile roof; reinforced concrete and wood floors; steam heat; \$3000; city lighting, \$1000. Address Lonnie B. Perrin, Archt. and Contr., Ashland, Va. (Lately noted.)

Va., Portsmouth.—First Baptist Church, Rev. E. Wellington Browne, Pastor, 129 Effingham St.; erect \$35,000 brick building, lately noted; 50x80 ft.; slate roof; bowl floor; steam heat; electric lighting; Russell & Johnson, Archts.; Atlantic Development Co., Contr., both 926 Church St., Norfolk. (See Machinery Wanted—Heating Plant; Electrical Fixtures; Steamfiting and Plumbing; Building Materials; Septic Tanks.)

City and County.

Ga., Cedartown.—Library.—City; erect \$22,000 library; 40x73 ft.; brick; slate roof; electric lights, \$300; Hentz, Reid & Adler, Archts., Atlanta; W. J. Beeland, Contr., Macon. (Lately noted.)

Ga., Columbus.—Fire Station.—City; erect fire station; 1 story; Japanese bungalow style; gray brick; tile roof; J. C. McCraney, Contr., at \$16,000; plumbing, Tidd Plumbing Co., \$3072. (Previously noted.)

Courthouses.

Tex., Richmond.—Court Commissioners; alter interior of courthouse; contract let.

Dwellings.

Ala., Fairfax.—Fairfax Mills; erect 25 dwellings; frame; red cedar shingle roof; West Point Iron Works, Contr., West Point, Ga.

D. C., Washington.—R. J. Laleger; erect 4 dwellings, 5701-09 32d St. N. W.; also 2 dwellings, 3418-22 Oliver St. N. W.; frame; \$54,000; W. S. Plager, Archt., 1930 Kearny St. N. E.; Bailey & Carlton, Contrs., Chaplin Ave. N. W.

D. C., Washington.—M. R. Weaver; erect frame dwellings, 2819-21 12th St. N. E.; R. L. Rossen, Archt.; H. Sisk, Contr.

D. C., Washington.—J. A. Connor, 2724 Ontario St. N. W.; erect 9 residences on Upshur St.; \$60,000; 2 stories; West & Talbot, Archts., Homer Bldg.; H. C. Ball, Contr., District Natl. Bank Bldg.

D. C., Washington.—H. C. Ball, District Natl. Bank Bldg., has contract to erect \$10,000 residence at 13th and Farragut Sts. N. W.; 3 stories; 20x32 ft.; West & Talbot, Archts., Homer Bldg.

Fla., Florence Villa.—Mrs. E. T. Willson; erect residence and garage; 1 story; 116x65 ft.; Jno. T. Simpson and Brown Falston, Archts., Essex Bldg., Newark, N. J.; W. E. Craig, Winter Haven, Fla., reported to have contract. (Lately noted.)

La., Shreveport.—Dr. Robert H. Blackman and Ernest Young; erect 20 dwellings; Spencer & Hinckley, Contrs.; ultimate plans call for 50 dwellings.

La., Hornbeck.—Crowell & Spencer Lumber Co.; erect 4 dwellings; E. P. Ferguson, Contr., Glenmora, La.

Md., Baltimore.—Harry Busick; erect 8 dwellings, Garrison and Wilson Aves.; 2 stories; brick; 21x36 ft.; \$12,500; Wm. F. Chew, Contr., 18 Clay St.

Miss., Lyon.—Dr. S. W. Glass; erect residence; George Rice, Contr.

Mo., Kansas City.—W. Wallace Greene; erect residence: 2 stories and basement; 29x36 ft.; C. E. Shepard, Archt., 510 Reliance Bldg.; M. T. Colgan, Contr., 1702 Overton Ave.

Mo., St. Louis.—Lee I. Niedringhaus; alter dwelling; \$12,000; James P. Jameson, Archt., Security Bldg.; Wright & Meis, Contrs., 803 Cass Ave.

Okla., Tulsa.—N. G. Henthorne; erect 5 dwellings; 5 to 7 rooms each; frame, concrete and brick; shingle roof; oak floors; \$30,000; J. H. Goble, Contr., 112 S. Lansing St. (Lately noted.)

Tex., Eastland.—Washburn & Lehelong; erect 2 dwellings; \$12,000; Griffith & Hesse, Contrs.

Tex., Houston.—Mrs. M. B. Cransby; erect \$10,000 residence; H. C. Vogt, Contr.

Va., Norfolk.—C. R. Murray; erect 2 dwellings on Colonial Ave.; 2 stories; \$5000 each; Craft & Welland, Contrs., 1313 Corpew Ave. (Lately noted.)

Va., Norfolk.—Alice M. Todd; erect \$10,000 residence, Holly Ave.; 2 stories; Craft & Welland, Contrs., 1313 Corpew Ave. (Lately noted.)

Va., Petersburg.—J. McTalley; erect \$8500 residence; 34x50 ft.; brick and stucco; slate roof; wood floors; hot-water heat, \$650; electric lighting; plans and construction by Harrison Construction Co. (Previously noted.)

Va., Petersburg.—C. Powell Lurn; erect \$10,000 bungalow; 33x71 ft.; 1 story; frame; Bishopric board; crushed-slate turn shingle roof; oak and pine floors; pipeless furnace; electric lights; Cope Lai, Archt., Center Hill Apartments; B. F. Keeler, Contr. (Lately noted.)

Va., Petersburg.—F. W. Britton; erect residence; 1½ stories; 30x36 ft.; wood and stucco on Bishopric lath; slate roof; rift pine floors; hollow fireproof tile; metal ceilings; wire glass; concrete floors; steel and sash trim; pipeless furnace, \$250; electric lights, \$300; Cope Lai, Archt., Center Hill Apartments. Address E. J. Andrews, Contr., Ettrick, Va. (Lately noted.)

Hospitals, Sanitariums, Etc.

Ala., Birmingham.—Fraternal Hospital; erect \$22,000 building; 36x77 ft.; wood and brick; composition roof; hardwood and terra cotta floors; Dunham system of steam heat; electric lighting; Miller & Martin, Archts., Title Bldg.; Day & Sachs, Contr., First National Bank Bldg.; plumbing, heating and wiring not in general contract. (Lately noted.)

Ark., Little Rock.—City Hospital Board, Mayor Ben. D. Brickhouse, Chrmn.; erect hospital; 4 stories and basement; reinforced concrete; asphalt roof; tile and concrete floor; steam heat; electric lights; electric elevators; John P. Almand, Archt.; contract for structural, concrete and plumbing work to Loftus Collamore at \$64,580. (Previously noted.)

Hotels.

Ky., Louisville.—Crescent Hotel Co.; erect \$250,000 hotel; 100x184 ft.; brick and concrete; tin and gravel roof; wood, concrete and marble floors; Joseph & Joseph, Archts., Atherton Bldg.; Platoff & Bush, Contrs.

Md., Cumberland.—Wm. H. Hager, Washington, D. C., and others; erect George Washington Hotel; 8 stories and roof garden; granite and tapestry brick; terra-cotta trim; 6 Corinthian columns; Phillip M. Julian, Archt., Commercial Natl. Bank Bldg., Washington; Wise Granite & Construction Co., Contr., Richmond, Va. (Lately noted.)

Miss., Quitman.—George Carlson, Contr.; erect hotel building.

Mo., St. Louis.—Claridge Hotel Co., Chas. F. Levy, Prest.; erect \$600,000 hotel; 75x155 ft.; 12 stories; reinforced concrete; composition

roof; cement and wood floors; steam heat, \$42,892; electric lights; electric elevators; all contracts let; Barnett, Haynes & Barnett, Archts., Century Bldg. (Previously noted.)

Miscellaneous.

Tex., Galveston.—Clubhouse.—Galveston Country Club, Robt. L. Cohen, Sr., Chrmn. Committee; construct clubhouse and 18-hole golf links; frame; shingle roof; wood floors; 4000 ft. floor space; \$15,000; Stowe & Stowe, MOT CARS GAR TIRES care of Popular Theater, Poplar Grove, near Edmondson Ave.; erect 1-story 50x131-ft. garage and store; construction by owner.

Va., Covington—Home.—Home for Homeless Boys; erect superintendent's home, reception hall, etc.; \$17,000; W. K. Barger, Contr., Lynchburg.

Va., Danville—Clubhouse.—Danville Country Club, P. J. Connelly, Prest.; erect \$13,000 clubhouse; 2 stories; 32x30 ft.; E. R. James, Archt., Dudley Bldg.; Chas. M. Weber, Contr., 819 Pine St. (Previously noted.)

Railway Stations, Sheds, Etc.

D. C., Washington.—Washington Railway & Electric Co.; repair car barn, 4th and T Sts. N. E.; \$10,000; 1 story; 102x200 ft.; S. J. Prescott Co., Contr., S14 13th St. N. W.

Schools.

Ga., Leslie.—Union High School Trustees, Dr. L. M. Hawkins, Chrmn. Bldg. Comm.; erect \$65,000 building; 20 rooms; electric lights; steam heat; Edwards, Sayward & Leitner, Archts., Chamber of Commerce, Atlanta; A. C. Knight, Contr., Albany, Ga. (Previously noted.)

La., Campi.—School Board; erect \$46,000 brick school building; J. W. Smith, Archt., Monroe, La.; M. Machell, Contr., Shreveport, La. (Lately noted.)

Ia., Iowa.—Calcasieu Parish School Board, F. K. White, Secy., Lake Charles; erect \$20,700 building; 2 stories; brick; composition roof; wood floors; stoves; A. H. Humphrey, Archt.; J. L. Neff, Contr., both Lake Charles. (Previously noted.)

Md., Baltimore.—St. Mary's Industrial School; erect men's quarters; 2 stories; 44x43 ft.; Hugh J. Kavanagh, Archt., 913 N. Calvert St.; Price Construction Co., Contr., Maryland Trust Bldg.

Mo., Kansas City.—Board of Education, J. E. Jackson, Jr., Secy., Library Bldg.; erect 1-story-and-basement school, 45th and Wabash Sts.; 17 rooms; brick; stone trim; C. A. Smith, Archt., Finance Bldg.; A. F. Madorie, Contr., Reliance Bldg. (Lately noted.)

N. C., Asheville.—School Board; erect \$24,000 school on Livingston St.; W. H. Lord, Archt.; L. Merchant, Contr. (Lately noted.)

N. C., Wilmington.—Hanover County Board of Education; erect \$312,000 3-story high school; 137x236 ft.; auditorium to seat 1100; 50-ft. stage; 40 classrooms; fireproof; brick and reinforced concrete; glazed terra-cotta trim; interior partitions; hollow tile; maple floors over concrete; fire escapes; steel, concrete and slate stairways; fireproof stair towers; Liberty Engineering & Construction Co., Contr.; H. E. Robinson, plumbing, \$13,800; J. W. Blake, electric work, \$10,895; W. J. Wilkins & Co., Archts., Masonic Temple. (Lately noted.)

Va., Lynchburg.—Brooksville Dist. School Board, Jno. T. Atkins, Clk., 321 Main St.; erect \$31,000 grade school at Fort Hill; also \$22,000 school at Rivermont; both 48x87 ft.; 2 stories and basement; concrete, frame and stucco; Ludowici tile roof; rift-pine floors; city lights; Stanhope S. Johnson, Archt., People's Bank Bldg. Address W. K. Barger, Contr. (Lately noted.)

Stores.

D. C., Washington.—J. D. Sheer; erect \$20,000 building; 25x75 ft.; 2 stories and basement; brick; slag roof; concrete and hardwood pine floors; metal ceilings; interior tile; wire glass; ventilators; steam heat; A. H. Wilson, Archt., Washington Loan & Trust Bldg.; M. Gunenick, Contr., 1125 5th St. N. W.

Fla., Ocala.—B. Goldman; remodel store; lately noted; install front, etc.; also erect \$3000 building for undertaking establishment; 90x40 ft.; corrugated-iron siding and roof; cement floors; Jack Thompson, Contr. (See Machinery Wanted—Store Front.)

La., Lake Charles.—S. M. Debaker; erect 1-story brick building; marble and plate-glass front; concrete and wood floors; composition roof; Knapp & East, Contrs.

Md., Baltimore.—Blumberg Bros. Co.; erect 3-story addition; remodel building, 223-25 W. Baltimore St.; \$70,000; 36x70 ft.; joist floor construction; slag roof; wood floors; Smith & May, Archts., 1133 Calvert Bldg.; Consolidated Engineering Co., Contr., Calvert Bldg.

Mo., Kansas City.—W. McCants, care Wilkinson & Crans, Archts., Reliance Bldg.; erect 3-story-and-basement building; leased by Portage Rubber Co., 1731 Grand Ave.; G. M. Bliss Construction Co., Contr., 526 Lathrop Bldg.

Okla., Tulsa.—J. C. Good, Box 1961; erect \$65,000 building lately noted; first floor, stores; second and third, hotel rooms; 50x132 ft.; fireproof; tar and gravel roof; concrete floors; steam heat, \$4500; Joe Stone, Archt.; J. R. Burnside, Contr., both Drexel Bldg. Address owner. (See Machinery Wanted — Store Fronts.)

Okla., Tulsa.—Aby, Tucker, Corey & Corey; erect \$80,000 business and office building; 75x140 ft.; 3 stories; steel, concrete and brick; concrete roof and floors; lighting and heating plants; elevators; Geo. Winkler, Archt.; J. R. Burnside, Contr. (Lately noted.)

Va., Lynchburg.—Judge F. P. Christian, 412 Madison St.; erect \$10,000 building; 2 stories; 24x54 ft.; \$10,000; Craighill & Cardwell, Archts., People's Bank Bldg.; B. C. Smoot, Contr., 1015 Rivermont Ave. (Lately noted.)

Theaters.

Oka., Cushing.—Guss Howerton; erect theater; P. H. Weathers, Archt., Oklahoma City; P. F. Gross, 412 S. First St., Guthrie, Okla., contractor on percentage basis.

Tex., Houston.—H. C. House; erect \$196,000 warehouse for Butler Bros.; 150x250 ft.; 2 stories and basement; reinforced concrete; tar and gravel roof; reinforced concrete floors; R. D. Steele, Archt.; Horton & Horton, Contrs. (Lately noted.)

Tex., Laredo.—H. G. Ernest, Ed. E. Russell and others; erect \$45,992 theater and office building; 103x33 ft.; tile and face brick; Johns Mansville asbestos built-up roof; natural-gas heat; Herbert S. Green, Archt., Alamo Bank Bldg., San Antonio; Lewis Jammers, Contr., Laredo. (Lately noted.)

Warehouses.

Fla., Jacksonville.—Delcher Bros. Investment Co.; erect 4-story addition to storage warehouse; 72x104 ft.; fireproof; reinforced concrete; tar and gravel roof; beam and girder-floor construction; addition to present lighting plant; extension to freight elevator; \$50,000; Roy A. Benjamin and Mellen C. Greeley, Archts., Bisbee Bldg.; W. T. Hadlow Co., Contr. (Lately noted.)

Mo., Kansas City.—Geo. N. Neff; erect \$95,000 warehouse, leased by American Steel & Wire Co.; 3 stories and basement; 120x142 ft.; Rudolph Markgraf, Archt., Ridge Bldg.; Kansas City Construction Co., Contr., Commerce Bldg.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Automobile; Accessories, etc.—Automobile Renewal Co., Buford A. Mathes, Prest., 516 W. Market St., Johnson City, Tenn.—To represent manufacturers of automobiles; trucks; tractors; accessories.

Bank Equipment.—A. W. Henschel, Friano, Tex.—Prices on safe, vault and safe deposit boxes.

Bank Equipment.—C. Blankenship, Bay Springs, Miss.—Prices on safe and vault.

Bank Fixtures.—Guy Stephenson, Banks, Ark.—Bank fixtures.

Bank Fixtures.—S. R. Dennis, Morgan, Mo.—Prices on bank fixtures.

Boats.—Sharkey County Comrs., M. P. Moore, Chancery Clerk, Rolling Fork, Miss.—60-ft. steel ferry boats.

Boiler.—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—Second-hand Scotch boiler for steam lighter, 12½ ft. long, 9½ ft. diam., 220 2½-in. tubes and 2 furnaces.

Boiler.—Hampton Lumber Co., R. L. Hampton, Mgr., Rutherfordton, N. C.—Boiler.

Boilers.—Hackley Morrison Co., 16½ N. 9th St., Richmond, Va.—Twelve 150 H. P. high-pressure horizontal return-tubular boilers, with or without fronts and fixtures; second-hand.

Box Machinery.—R. V. Brawley, Statesville, N. C.—Box machinery.

Breaker (Ore).—Robt. R. Nixon Co., James Bldg., Chattanooga, Tenn.—Second-hand Bradford breaker.

Brick.—W. T. Culpepper, 17 N. Water St., Elizabeth City, N. C.—Press brick for 3-story building; 40x80 ft.

Bricks.—Pamlico Brick-Tile Co., Washington, N. C.—8 or 12 cars paving or vitrified brick.

Bucket.—See Cableway, etc.

Building Material.—E. Wellington Browne, 1306 Effingham St., Portsmouth, Va.—Prices on slating, ceiling and flooring for church 50x80 ft.

Building Material.—Building Materials Co., H. H. Roof, Mgr., Biloxi, Miss.—Directory of manufacturers of all kinds of building material.

Cableway, etc.—Robt. R. Nixon Co., James Bldg., Chattanooga, Tenn.—2000 ft. cable with 4 or more towers; prefer 1½-in. or larger lock coil cable; hoist and bucket.

Canning Machinery.—Chamber of Commerce, J. C. Fowler, Secy.-Mgr., De Ridder, La.—Data and prices on canning machinery.

Cars.—Robt. R. Nixon Co., James Bldg., Chattanooga, Tenn.—10 to 20-ton double-track drop-bottom cars; 36-in. gauge.

Cars.—White Oak Corp., H. S. Taylor, Secy.-Treas., Johnson City, Tenn.—20 dump cars; 36-in. gauge; 6 to 10 tons capacity for ore.

Cars.—Nicholson Construction Co., Harrisonville, Mo.—Second-hand drier cars for brick plant.

Cars.—A-112, care Manufacturers Record, Baltimore, Md.—25 standard gauge 12 to 20-yd. air dump cars.

Cars.—Alabama Lime Works, J. J. Farnsworth, Prest.-Mgr., Fort Payne, Ala.—Bottom-dump tram cars for \$20,000 lime plant of 4 kilns.

Carts.—Consolidated Cone Co., W. A. Johnson, Mgr., Birmingham, Ala.—Small carts for packing cones; large corrugated shipping containers.

Channel.—Clear Creek Drainage Dist. Commissioners Lafayette County, Oxford, Miss.—Bids until Dec. 27; construct channel; 130,160

yds. main channel; 500 yds. lateral excavation clearing 45% acres right-of-way; W. M. Woodward, Chancery Clerk.

Clayworking Machinery.—Nicholson Construction Co., Harrisonville, Mo.—Complete outfit second-hand clayworking machinery.

Compressor (Air).—T. H. Letson Co., 50 Church St., New York.—1500 cu. ft. Corliss valve compound steam 2-stage air compressor, 100 lbs. pressure.

Cotton Gin.—Furr & Barbee, Oakboro, N. C.—Cotton gin.

Cranes.—Atlantic Engineering Co., 20 Commercial Bank Bldg., Savannah, Ga.—3 full circle swing locomotive type cranes with 30-ft. boom and ground traction wheels, capacity sufficient for handling ¾-yd. clam-shell bucket.

Containers (Metal).—S. E. N. Moore, 702 Holston Bank Bldg., Knoxville, Tenn.—Butter and egg metal containers for small parcels-post shipments; capacity 2 to 10 lbs. butter, 2 to 3 doz. eggs.

Creamery Equipment.—Chamber of Commerce, J. C. Fowler, Secy.-Mgr., De Ridder, La.—Data and prices on creamery equipment.

Crusher.—W. W. Boxley & Co., Roanoke, Va.—Second-hand No. 6-K Gates gyratory crusher.

Crushing Outfit, etc.—Charles B. Metcalf & Son, San Angelo, Tex.—15-ton per hour portable rock-crushing outfit; rock-hauling trailer; wagons.

Compressors.—Alabama Lime Works, J. J. Farnsworth, Prest.-Mgr., Fort Payne, Ala.—Air compressors.

Drainage Ditches.—Sugar Creek Drainage Dist., G. D. Perry, Chrmn., Madison, Ga.—Bids until Dec. 12; construct 14 mi. main ditch, 14 mi. 3 lateral ditches; 497,402 cu. yds. earth excavation; 893 cu. yds. rock excavation; J. F. Carey, Surveyor.

Drills.—Alabama Lime Works, J. J. Farnsworth, Prest.-Mgr., Fort Payne, Ala.—Air drills for \$20,000 lime plant of 4 kilns.

Electrical Fixtures.—E. Wellington Browne, 1306 Effingham St., Portsmouth, Va.—Prices on electrical fixtures for church.

Electrical Machinery.—National Engineering & Electric Co., Belair Rd. and Southern Ave., Baltimore, Md.—Two 175 to 250 K. W. 220-volt 3-phase 60-cycle alternators, direct connected to engines of high-grade manufacture; also 220-volt 3-phase motors from 5 to 50 H. P.

Electrical Equipment.—Panama Canal, Washington, D. C.—Bids until Dec. 26; electrical equipments, etc.; Circular No. 1320; plans, etc., on file.

Electrical Equipment.—Church of Jehovah, J. A. Corbell, Supt., Long Island, Ala.—Data and prices on dynamos, motors, switchboards, engines, insulators, wire, lamps, switches, etc.

Electric Machinery.—Wood & Lane Co., 915 Olive St., St. Louis, Mo.—Two 75 or 100 K. W. 3-phase 60-cycle 440-volt belted generators with excitors; two 150 or 200 K. W. 250-volt D. C. engine generator sets; 150 or 200 K. W. 3-phase 60-cycle 2300-volt generator, direct connected to engine; consider belted 1500 K. W. 600-volt 3-phase 60-cycle alternator, direct connected to horizontal condensing engine; Allis-Chalmers preferred.

Electrical Supplies.—Home City School, Long Island, Ala.—Prices and terms on radio, electrical astronomical goods and supplies.

Electrical Unit.—Orange Milling Co., H. C. Warren, Secy.-Treas., Orange, Va.—250 H. P.

electrical unit, generated by steam, oil or gas.

Elevators.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C.—Bids until Dec. 30 to install two electric elevators in marine hospital at Stapleton, New York, N. Y.; copies of drawings and specifications from office of Supervising Archt.

Engine.—P. O. Box 631, Montgomery, Ala.—Gasoline engine for varying load from ¼ to ½ H. P.

Engine.—Hackley Morrison Co., 16½ N. 9th St., Richmond, Va.—Reciprocating steam engine. (See Generator, etc.)

Engines.—National Engineering & Electric Co., Belair Rd. and Southern Ave., Baltimore, Md.—Engines for alternators. (See Machinery.)

Engine Generator Set.—Wood & Lane Co., 915 Olive St., St. Louis, Mo.—1500 K. W. 600-volt 3-phase 60-cycle alternator, direct connected to horizontal condensing engine; Allis-Chalmers preferred.

Engine Generator Set.—Wood & Lane Co., 915 Olive St., St. Louis, Mo.—150 or 200 K. W. 3-phase 2300-volt generator, direct connected to engine; consider belted.

Engine Generator Set.—Wood & Lane Co., 915 Olive St., St. Louis, Mo.—Two 150 or 200 K. W. 250-volt D. C. engine generator set.

Engine.—Hampton Lumber Co., R. L. Hampton, Mgr., Rutherfordton, N. C.—Engine.

Fan.—Arkansas Brick & Tile Co., W. W. Dickinson, Prest., Little Rock, Ark.—Overhanging 14 to 16-ft. induction fan; second-hand.

Flooring.—Emil Fischer, New Braunfels, Tex.—Oak flooring for dwelling, 33x35 ft.

Fleur Mill.—United Machine Works, 57 W. 3d St., New York.—Second-hand flour mill; daily capacity 1500 bu.; export shipment, quote prices F. A. S. New York; delivery and weight.

Generator, etc.—Hackley Morrison Co., 16½ N. 9th St., Richmond, Va.—200 K. W. 3-phase 60-cycle 2300-volt generator, direct connected to reciprocating steam engine, Corliss type preferred; second-hand outfit.

Generators.—Wood & Lane Co., 915 Olive St., St. Louis, Mo.—Two 75 or 100 K. W. 3-phase 60-cycle 440-volt belted generators with excitors.

Grader.—See Sawmill, etc.

Grist-mill Equipment.—Church of Jehovah, J. A. Cordell, Supt., Long Island, Ala.—Data and prices on grist mills, feed choppers, shafting, belting, etc.; steam or oil engines.

Heating Plant.—E. Wellington Browne, 1306 Effingham St., Portsmouth, Va.—Prices on steam-heating plant for church.

Heating Plant.—Emil Fischer, New Braunfels, Tex.—Heating plant for dwelling, 33x35 feet.

Heating Plant.—C. W. Lyman, Crowley, La.—Heating plant for 3-story brick building, 75x150 ft.

Hoist.—See Cableway, etc.

Hoist.—Alabama Lime Works, J. J. Farnsworth, Prest.-Mgr., Fort Payne, Ala.—Gasoline hoist for \$20,000 lime plant of 4 kilns.

Lathe.—A-113, care Manufacturers Record. 50-in. lathe with 16-ft. bed.

Locks.—See Millwork, etc.

Locomotive.—Carter County Mining Co., R. F. Morrison, Mgr., Chilton, Mo.—Shay locomotive.

Locomotive.—White Oak Corp., H. S. Tay-

lor, Secy.-Treas., Johnson City, Tenn.—20-ton 36-in. gauge geared locomotive.

Locomotive.—Alabama Lime Works, J. J. Farnsworth, Prest.-Mgr., Fort Payne, Ala.—Gasoline locomotive for cars for \$20,000 lime plant of 4 kilns.

Locomotives.—A-112, care Manufacturers Record, Baltimore, Md.—Two 40 to 50 standard gauge locomotives, either Mogul, ten-wheeler or Prairie type.

Locomotive.—A-113, care Manufacturers Record.—45 to 60-ton standard gauge locomotive.

Lumber.—Moultrie Construction Co., D. G. Miller, Mgr., Commercial Bldg., Moultrie, Ga.—50,000 ft. 1-in. T. & G. flooring, 2x6, 4x4 and 1x8, for reinforced concrete work at Richmond, Va.

Lumber-finishing Machinery.—Furr & Barber, Oakboro, N. C.—Lumber-finishing machinery.

Millwork, etc.—Church of Jehovah, J. A. Corbell, Supt., Long Island, Ala.—Doors, windows and locks.

Motor (Gas).—See Saw.

Moulder.—R. P. Johnson, Wytheville, Va.—Hermanse, Smith or American 6-in. 4-side moulder; rebuilt or first-class second-hand.

Oil Refinery Equipment.—Texas Eagle Producing & Refining Co., 603½ Main St., Fort Worth, Tex.—Bids until Dec. 15; stills, agitators, tanks, condensers, pipe, valves, fittings, pumps, boilers, etc.

Overall Factory Equipment.—Walter S. Buchanan, Normal, Ala.—Data and prices on overall factory equipment; electric drive.

Paving.—City of Salisbury, N. C., W. T. Rainey, Clerk.—8500 sq. yds. bitulithic paving; 1650 sq. yds. street railway paving on S. Fulton St.; bids opened Dec. 10.

Paving.—City of Lake Charles, La., E. S. Crosby, Commr. Streets and Parks.—To pave Cleveland, Kirkman, Gill and Pithon Sts. with concrete; Clarence, Iris, North and Ford Sts. with vitrified brick or other pavement; cement sidewalks on Iris, Fourth Sts. and City Hall Sq.; bids opened Dec. 10.

Paving.—City of Montgomery, Ala., J. L. Cobbs, Treas.—Bids until Dec. 23; pave roadway of Morgan Ave.; brick, asphalt, bitulithic, mineral rubber, wood block or concrete; plans, etc., with H. A. Washington, Engr.

Peanut-butter Machinery.—Church of Jehovah, J. A. Cordell, Supt., Long Island, Ala.—Data and prices on machinery for making peanut butter.

Pipe.—Star Refining Co., 901 Commerce St., Fort Worth, Tex.—Data and prices on 5 mi. 2 and 2½-in. line pipe.

Pipe.—Carter County Mining Co., R. F. Morrison, Mgr., Chilton, Mo.—Prices on 2½-in. pipe; distance 600 ft.; elevation 200 ft.

Pipe.—I. Buford & Co., 509 N. 5th St., Richmond, Va.—600 ft. 6-in. cast-iron water pipe; 300 ft. 4-in. gas pipe; second-hand preferred; dealers' prices, f. o. b. cars Richmond.

Planer.—Hampton Lumber Co., R. L. Hampton, Mgr., Rutherfordton, N. C.—Planer.

Press.—A-113, care Manufacturers Record, 150-ton car wheel press.

Pump.—Merritt W. Pharo, Bourse Bldg., Philadelphia, Pa.—Triplex single-acting 8x10 to 10x12 pump; description and price.

Pump.—Carter County Mining Co., R. F. Morrison, Mgr., Chilton, Mo.—Prices on 20 H. P. hydraulic pump; 125 to 150 lbs. water pressure.

Quay Wall.—Navy Dept., Bureau Yards and Docks, Washington, D. C.—Bids until

Dec. 10; construct quay wall; estimated cost \$180,000; specification 4078.

Radio.—See Electrical Supplies.

Rails.—Hackley Morrison Co., 16½ N. 9th St., Richmond, Va.—Small carload 25-lb. relay rails; Nebraska delivery.

Rails.—White Oak Corp., H. S. Taylor, Secy.-Treas., Johnson City, Tenn.—5½ mi. track, 40 or 45-lb. relaying rails with fittings.

Rails.—A-112, care Manufacturers Record, Baltimore, Md.—5 mi. 50 to 60-lb. rails.

Rails.—A-113, care Manufacturers Record, Baltimore, Md.—70 tons 60-lb. relaying rails.

Road Construction.—Sumter County Commissioners, Sumterville, Fla.—Bids until Dec. 15; 40 mi. roads; brick, asphalt-concrete, bituminous; \$750,000; Young-Merrin Co., Engr., Dade City, Fla.

Road Construction.—Wharton County Commissioners, Wharton, Tex.—Bids until Dec. 22; 5.9 mi. Highway No. 3; Federal-Aid Project No. 15; 4.39 mi. grading; 15,400 cu. yds. gravel; 61,000 sq. yds. bituminous surface; plans, etc., with B. D. King, County Engr., Wharton, and State Highway Dept., State Office Bldg., Austin, Tex.

Road Construction.—Thomas County Commissioners Roads and Revenues, S. L. Heald, Clerk, Thomasville, Ga.—Bids until Jan. 6; 2½ mi. road; Federal Aid, Georgia Project No. 99; one course concrete, bituminous macadam, rock asphalt, asphaltic concrete on concrete base; 26,400 sq. yds. pavement; 26,400 sq. yds. machine grading; plans, etc., on file at Thomasville; State Highway Engr., Atlanta, and with Frank Mitchell, County Highway Engr., Thomasville.

Road Construction.—Tyler County Commissioners, Woodville, Tex.—Bids latter part January; 265 mi. road and bridges; \$800,000; Hess & Skinner, Engrs.

Road Construction.—Columbia County Comr. J. L. Markham, Clerk, Lake City, Fla.—Bids until Jan. 6; hard-surfaced public roads; \$900,000 available.

Road Construction.—Pittsylvania County Supervs., Chatham, Va.—Bids until Dec. 16; 9.5 mi. soil road; specifications with Virginia State Highway Comrs., Richmond; additional information with H. T. Ammerman, County Engr.

Road Construction.—Adams County Supervisors, Natchez, Miss.—Bids until Dec. 16; 3.6 mi. road; Federal-Aid Project No. 80; State Trunk road between Natchez and Fayette; 5700 cu. yds. gravel; plans, etc., with State Highway Dept.; Xavier A. Kramer, State Highway Engr., Jackson, and on file at Natchez.

Road Construction.—West Randolph County Road Improvement Dist., E. Dalton, Chr. Pocahontas, Ark.—Bids until Dec. 19; 122.56 mi. gravel road and 19.69 mi. macadam road; culverts and bridges; 122,000 cu. yds. gravel and surfacing; 45,712 cu. yds. macadam; plans, etc., on file at Pocahontas and with Lund & Hill, Engrs., 527 Southern Trust Bldg., Little Rock.

Road Construction.—Liberty County, C. N. Smith, Liberty, Tex.—Bids until Jan. 12; 8.5 mi. gravel road; 17,153.55 cu. yds. gravel surfacing; plans, etc., with County Clerk at Liberty and State Highway Dept., Land Office Bldg., Austin.

Road Construction.—State Highway Dept., 736 Maison Blanche Annex, New Orleans, La.—Bids until Dec. 15; 6.23 mi. Baton Rouge-New Orleans Highway; gravel; St. Charles Parish; Duncan Bule, State Highway Engr.

Road Construction.—State Highway Dept., 736 Maison Blanche Annex, New Orleans, La.—Bids until Dec. 15; 23 mi. Franklin-Pearl River Highway; Sections A-1 and A-2; gravel; 11.97 mi. Franklin-Mississippi

State Line Highway; gravel; Washington Parish; changed date from Oct. 27; Duncan Bule, State Highway Engr.

Road Machinery.—See Sawmill, etc.

Road Machinery.—City of Columbia, S. C.—Data and prices on heavy dumping truck; auto street sprinkler; auto sweeper; 10-ton steam tractor.

Safe.—See Bank Equipment.

Safe Deposit Boxes.—See Bank Equipment.

Saws.—Hammer Lumber Co., 807 Murchison Bldg., Wilmington, N. C.—Several end-lever chain tooth saws, attached to gas motor.

Sawmill, etc.—U. S. Indian Warehouse, 310 Elm St., St. Louis, Mo.—Bids until Dec. 8; 60 H. P. traction engine; portable sawmill; caterpillar type tractor; 10-ft. road grader; plow; 2 heavy road plows; 3-way road drag.

Sawmill (Portable).—See Sawmill, etc.

Septic Tanks.—E. Wellington Browne, 1306 Effingham St., Portsmouth, Va.—Prices on septic tanks.

Sewers.—Comr. of Public Works, Batesburg, S. C.—Bids until Dec. 18; construct sewer system; 2 septic tanks; 34,000 lin. ft. 8, 10, 12-in. vitrified clay pipe; 56 manholes; 10 flush holes; plans, etc., from Nisbet Wingfield, Consrt. Engr., Augusta, Ga.

Seating (Theater).—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—Dealers' prices on 150 to 250 second-hand opera-house or moving-picture theater chairs; immediate delivery; iron sides or iron arms desired.

Steam Fitting and Plumbing.—E. Wellington Browne, 1306 Effingham St., Portsmouth, Va.—Prices on steam fitting and plumbing for church.

Steam Shovel.—White Oak Corp., H. S. Taylor, Secy.-Treas., Johnson City, Tenn.—Steam shovel with traction wheels; ½ or ¾-yd. dipper; for brickyard.

Steam Shovel.—Adams, Payne & Hall, 709 Main St., Lynchburg, Va.—Small steam shovel for brick plant next year.

Steel Jackets.—Alabama Lime Works, J. J. Farnsworth, Prest.-Mgr., Fort Payne, Ala.—Steel jackets for \$20,000 lime plant of 4 kilns.

Store Fronts.—J. C. Good, Box 1961, Tulsa, Okla.—Proposals on metal store fronts.

Store Front.—B. Goldman, Ocala, Fla.—Prices on store fronts.

Street Sweepers.—See Road Machinery.

Sugar Mill.—United Machine Works, 57 W. 3d St., New York.—Second-hand sugar mill; large capacity; export shipment; quote prices F. A. S. New York; delivery and weight.

Tables.—Pennock-Pullman Table Co., 4082 Dill Ave., Cleveland, O.—To let contract for manufacture "Pennock 7 in 1 Table;" lots of 500 to 1000; drawings, specifications, etc., now ready.

Tank.—Seaboard Feed & Produce Co., Henderson, N. C.—Steel tank for molasses; 10,000 to 15,000 gals.

Tanks.—Star Refining Co., 901 Commerce St., Fort Worth, Tex.—Data and prices on two 25,000-bbl. steel storage tanks, standard specification; 55,000-bbl. steel storage tanks, standard specification.

Tank and Tower.—Box 90, Fort Smith, Ark.—50,000 to 100,000-gal. minimum capacity hemispherical bottom and conical top waterworks tank on tower to bring water line 100 ft. above ground; location, condition, prices, whether f. o. b. or as now standing; distance from railroad.

Telephone Exchange.—Church of Jehovah, J. A. Corbell, Supt., Long Island, Ala.—Quotations on telephones, switchboards, insulated wire and equipment for telephone exchange.

Ticket Choppers.—Newman Manufacturing Co., 719 Sycamore St., Cincinnati, O.—To contract for manufacture of ticket chopper boxes for theaters.

Traction Engines.—Charles B. Metcalf & Son, San Angelo, Tex.—New or second-hand 35 H. P. traction engines on belt pulley.

Tractors.—See Road Machinery.

Tractors.—See Sawmill, etc.

Trailer (Rock Hauling).—See Crushing Outfit, etc.

Vault.—See Bank Equipment.

Veneering Machine.—Griswold Supply Co., Macon, Ga.—60x40x16 St. Joseph's veneering machine and clipper; immediate shipment.

Wagons.—See Crushing Outfit, etc.

Water-works.—Commrs. of Public Works, Batesburg, S. C.—Bids until Dec. 18; construct water-works; 50-ft. diam. concrete reservoir; 150 H. P. boiler; two 500,000 gals. each pump; air-lift plant; pumping station; 450 tons 6 to 10-in. C. I. pipe; 10 tons special castings; 29 hydrants; 33 valves; plans, etc., from Nisbet Wingfield, Consult. Engr., Augusta, Ga.

Water-works Equipment.—City of Orange, Va., A. J. Barlow, Mayor.—Bids until Dec. 18; construct 3 mi. 8-in. C. I. pipe for water mains to Rapidan River; 15,000-gal. per hour filtration plant; two 60 H. P. crude oil engines; two 250-gal. per minute centrifugal pumps, 450-ft. head; 250-gal. per minute centrifugal pump, 50-ft. head; plans, etc., at office Water-works Supt. and Saville & Clai- borne, Engrs., Richmond, Va.

Windows.—See Millwork, etc.

Woodworking Machinery.—Muecke & Sons Co., 618 New St., Macon, Ga.—Woodworking machinery with direct-connected motor drive.

Railroad Construction

Railways.

Ala., Dothan.—The Central of Georgia Railroad, it is reported, will survey for a contemplated extension from Lockhart to Munson, Fla., about 35 miles; C. K. Lawrence, Chief Engr., Savannah, Ga.

Ala., Tuscaloosa.—Bowers Coal Co., Inc., contemplates construction of a narrow-gauge railroad from its mines to the Warrior River, about a mile. W. E. Bowers of Tuscaloosa is President.

Ark., Cunningham.—Black Bros., lumbermen, are reported building a branch railroad into the White River bottom lands, near Holly Ridge.

W. Va., Moorefield.—Moorefield Southern R. R. proposes to build a narrow-gauge line 20 miles long from Moorefield up the valley of the South Branch of the Potomac River to Peru, W. Va. Wm. T. Morgan is Chief Engineer. Directors, W. B. Cornwell, President, Winchester, Va.; Hetzel S. Pownall, Vice-President and General Manager, Cumberland, Md.; J. S. Zimmerman, Secretary and Treasurer, Romney, W. Va.; G. E. Vance, G. W. McCauley and Sam A. McCoy of Moorefield, W. Va., and M. Dasher of Cumberland, Md.

gross sales of over \$160,000,000, a fact which emphasizes the importance of this new post. Mr. Rockhill has been with the company over twelve years, his first service being in the automobile tire department, handling repairs and adjustments. Next he was manager of the aeronautical department, then manager of the automobile tire department and assistant sales manager in charge of tire sales.

Stukenberg Cotton Picker.

Announcement is made by L. F. Wegerly, secretary-treasurer of the Cotton Picker Co. of America, 5438 Prairie Avenue, Chicago, that his company will begin the manufacture of the Stukenberg cotton-picking machine, known as the machine with "human fingers," in large quantities. Mr. Wegerly writes that the Stukenberg picker has proven successful throughout the present season and merits all that is claimed for it, i.e., that the machine picks cotton from bolls cleaner than hand-picked; does not injure open bolls or the plant; the machine can be guided down cotton rows, making three or four pickings without injury to the plant; the locks of cotton are separated and dirt discarded; and cold weather, dew, or damp cotton do not interfere with the picking.

Large Linen Plant to Be Sold.

The manufacturing properties of the Phoenix Linen Co., North Brookfield, Mass., are to be sold on the premises on Thursday and Friday, December 18 and 19, beginning at 10:30 A. M. each day, as announced in another column. There is a three-story brick building 15x50 feet, a three-story and high basement reinforced concrete building 15x61 feet, a two-story and high basement 9-section monitor top roof reinforced concrete building 17x377 feet, and a one-story 8-section saw-tooth roof brick building 160x150 feet, etc. The entire equipment is said to be of late type and a bleaching and drying equipment also modern. There are nearly 1400 lots in the sale. Catalogue can be obtained from the auctioneers, J. E. Conant & Co., Lowell, Mass.

Carbide Furnace Installation.

A new carbide plant, to be operated by water-power, is being designed by W. E. Moore & Co., engineers, Pittsburgh, Pa. A 46-foot fall of the Saranne River will be developed to a total capacity of 3700 horsepower by means of horizontal turbines and electric generators. A new Moore carbide furnace is being installed. A complete outfit of crushing, sizing machinery, together with all the detail machinery necessary to make the cans, including the laboratory outfit, is being designed for early installation. The president of this company is G. A. Stromblad, who has interested sufficient consumers of carbide to insure a market for his own-output.

Has Opened District Offices.

The Booth Electric Furnace Co., 53 West Jackson Blvd., Chicago, whose incorporation was announced a few weeks ago, has opened up the following district offices in connection with the sale of electric furnaces for melting steel, iron and non-ferrous metals: For New York and New England, Edward B. Stott & Co., Flatiron Bldg., New York City, with E. F. Tweed, secretary of the company, directly in charge; for Eastern Pennsylvania, New Jersey, Maryland and Southern Atlantic Coast States, Northern Engineering Co., 308 Chestnut St., Philadelphia, with F. W. Doran in charge; for Northeastern Ohio, Western Pennsylvania and Western New York State, Charles L. Foster, formerly sales manager of the Electric Furnace Co. of Alliance, O., with offices at 879 The Arcade, Cleveland, O. In connection with these district offices a com-

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Again Practicing His Profession.

Layton F. Smith, engineer-architect, 218 North Charles St., Baltimore, Md., announces that he has reopened his office after having served as lieutenant in the United States Navy for a period of two and half years. Before the war he was located at 513 North Charles St. Mr. Smith, who specializes in the design of reinforced concrete structures, desires to have catalogues of all kinds.

Expansion of the Reading Iron Co.

The Reading Iron Co. of Reading, Pa., manufacturer of wrought-iron pipe, is undergoing reorganization under the direction of L. E. Thomas, its president, who succeeded F. C. Smink. Mr. Thomas was formerly vice-president and general manager of the Birdsboro Steel Foundry & Machine Co. for 14 years, and has had a broad and varied experience in the iron and steel business, having also held important operating positions in the Ohio works of the Carnegie Steel Co., and later with the United Engineering and Foundry Co. The Reading Iron Co., under his management, has broken all previous production records. W. Woodward Williams, general manager, was for several years general manager of the A. M. Byers Company of Pittsburgh. He succeeds George Schuhmann, who retired on August 1 because of ill health. Craig Geddis, advertising manager, was formerly connected with the sales and publicity departments of the National Tube Co., and later publicity manager for the Mesta Machine Co. Important additions to the production departments include the appointments of Edgar F. Blessing as metallurgical engineer and W. E. Dunham as production engineer. Mr. Blessing was formerly with the Doehler Die Casting Co., Brooklyn, N. Y.,

and Mr. Dunham was, until very recently, service manager for the A. M. Byers Company. Among the many new developments of the Reading Iron Co. is the purchase of the George B. Lessig Company plant at Pottstown, Pa., by the acquisition of which an additional monthly muck bar capacity of 2600 tons is secured. The Lessig cut nail factory has been renovated and the equipment improved. It was put in operation November 6. The Reading Iron Co. has also purchased from the Empire Steel & Iron Co. ten acres of land adjoining their tube works for future extensions. Important changes have been made in the sales policies. Branch offices have been established at Philadelphia, Pa.; New York, N. Y.; Pittsburgh, Pa.; Chicago, Ill.; Dallas, Tex., and Cincinnati, O. Additional branches are now being located. With the present muck bar and skelp capacity, the pipe mills of the Reading Iron Co. are capable of producing 200,000 tons a year and are now operating well above this rate of production. In addition the company owns and operates the Scott Foundry, Reading, in which are produced all classes of machinery, besides a forge shop, the chief product of which is heavy marine forgings. The company also owns and operates 754 acres of coal lands in Somerset County, Pa.

Sales Manager Appointed.

The automobile industry generally, and the tire world particularly, will be interested in the announcement by the Goodyear Tire & Rubber Co., Akron, O., of its creation of the position of sales manager and the appointment to that position of L. C. Rockhill, who is widely known in the trade. Goodyear is also able to announce the close of the most successful year in its history, with total

In writing to parties mentioned in this department, it will be of advantage to all concerned

if the Manufacturers Record is mentioned.

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plete staff of engineers and metallurgists will be maintained, so that the needs of customers can be promptly and adequately taken care of. Further announcements will be made of the opening of other district offices, arrangements for which are being completed.

Second-Hand Machinery, Rails, Etc.

A new company to deal in second-hand machinery, contractors' equipment and supplies, steel piling, rails, etc., was incorporated about November 15 with the name of Mid-Continent Equipment & Machinery Co., and offices were opened in the Security Bldg., St. Louis, Mo. F. W. Glauser is president, R. H. Wilson, vice-president, and J. D. Fidler, secretary-treasurer. Each of these men is skilled in the business, having from five to eight years' practical experience in the same lines.

Two Officers Elected.

P. W. Sinram was elected president of the Van Dorn & Dutton Company, gear manufacturers, Cleveland, O., at the last meeting of the board of directors. He has been general manager for several years. Franklin Schneider was elected vice-president at the same meeting. He is president of the Van Dorn Electric Tool Co., of which Mr. Sinram is treasurer. Mr. Sinram is also president of the American Gear Manufacturers' Association, having held that post ever since it was organized.

Sanitary Sewage.

The Henrietta Mills of Caroleen, N. C., have made contract with the Sanitary Engineering Co. of Charlotte, N. C., for the installation of sanitary septic tank sewage disposal outfit for each of the operatives' houses in their village. This work comprises the installation of between 500 and 600 individual sanitary systems.

Office Established.

The Good Marble & Tile Co., contractors, have opened an office at 103 S. Jennings St., Fort Worth, Tex. Their line covers marble and tile work, marble for interior, exterior, monumental and decorative purposes, while the tile includes encaustic, ceramic, vitreous and Faience.

Orders Running Heavy.

The Chicago Pneumatic Tool Co. reports that orders booked during October were in excess of any previous month since the armistice was signed. The same is also true as to the company's subsidiaries in England and in Germany. While the latter was seized by the German Government after the United States entered the war and was conducted under compulsory administration, this method has been abolished and the management is being given back to the company, according to cable reports from the company's representative now returning from Berlin. Arrangements have been made to materially increase production.

A Great Foundry to Be Built.

Fairbanks, Morse & Co. will begin the erection in Beloit, Wis., in 1920, of a foundry which, it is stated, will equal in size and output any foundry in the world. This great structure will be 900 feet long, 550 feet wide, and will have 495,000 square feet of floor space. Including storage of flasks, iron, sand, etc., which will also be under the roof, it will cover eleven acres, and it will have an ultimate capacity of 350 to 400 tons of gray iron daily. This big foundry will eventually employ 1500 additional men, and 1500 more men will be required in other departments of the factory to meet the increased production that will result. This means an addition of 3000

workmen for the great plant, an increase of 75 per cent in its industrial army. Fairbanks, Morse & Co. alone will then employ 7000 men. Plans and specifications for the foundry are rapidly nearing completion. Raw material for its construction will be placed on the ground this winter and work will be begun as soon as the frost is out of the ground. It is understood that at least \$1,500,000 will be expended.

Trade Literature.**Fisher Steam Trap Catalogue.**

"The Fisher Trap" is the inscription on the front cover of the new steam-trap catalogue issued by the Fisher Governor Co., Inc., Marshalltown, Iowa, which publication bears the marks of having been very carefully and thoughtfully prepared. The illustrations, most of them on a black background, are exceedingly excellent, and careful study of them alone conveys an accurate idea of the many merits of this trap, although the reading matter is there to be consulted if desired. On the last few pages are given several suggestive installations of the Fisher trap, these covering their principal applications.

Interesting to Road Builders.

"Service That Even Caesar Could Not Get" is the inscription on the front cover page of a new pamphlet issued by the Austin-Western Road Machinery Co. of Chicago. Following a brief description of the very beginnings of road making with a sketch showing growth of the demand for better roads, is a description of the evolution of road-building equipment, which is supplemented by an article of the Austin-Western Service. The booklet is artistically prepared and there is a two-page map showing the many service stations of the company all over the United States.

Engines for Various Purposes.

A catalogue of unusual attractiveness has been issued by the Sterling Engine Co., Buffalo, N. Y., concerning its gasoline motors for various purposes. The Sterling engines are now designed for driving centrifugal pumps and electric generators as well as for marine purposes. "The marine product," says the book, "has been manufactured for over sixteen years, during which it has been used extensively by the United States Navy and many foreign navies," and the success of the racing engine built by this company and its conspicuous achievements are widely known. The stationary engines are employed for various services, numbers of them being installed in townships, villages and factories for fire protection, driving centrifugal pumps and also generators. The catalogue gives full descriptions, accompanied by fine, clear pictures, and there is also a folder especially devoted to a consideration of the use of these engines for fire fighting.

Cooling Towers, Etc.

Revised and enlarged Bulletin No. 112-B, entitled "Condensers, Pumps, Cooling Towers, Etc.," has just been published by the Wheeler Condenser & Engineering Co., Carteret, N. J., and it illustrates the latest developments in condenser practice. It shows a surface condenser containing 50,000 square feet of surface. Sixteen condensers of approximately this size are under construction. These will contain approximately 1000 miles of Crescent Brand tubing, drawn in the large tube mill. The bulletin illustrates and describes surface condensers, jet condensers, barometric condensers, the Wheeler-Edwards air pump, the rotative dry vacuum pump, the turbo-air pump, the patented steam jet air pump, centrifugal pumps, jet condensers, barometric condensers, natural and forced draft cooling towers, feed-water heaters and

evaporators and dryers also made by this company. A free copy of this bulletin will be sent to responsible persons upon mentioning this publication.

Book Reviews.

Theodore Roosevelt, an Intimate Biography. By Wm. Roscoe Thayer. Boston and New York. Houghton-Mifflin Company. 1919.

Roosevelt's strong American character is adequately portrayed in this book, which traces his career from childhood to the end of his life. In it his admirers will find everything to confirm them in their hearty approval of his career, both public and private, while those who opposed him publicly must find everything to admire in his courage and persistency displayed while fighting for his ideals, and doubtless there will not be one of them who will not love him for his private life, although the references to it are not as detailed as one might expect from the title. The author, Mr. Thayer, was a college mate of his, and knew him well to the last of his days. He rightly says that combative ness was the outstanding characteristic of this great American. He does not attempt to excuse or pass over the few errors of judgment of his career, but simply notes them as his misses. Of his accomplishments he writes plainly and to the point with calm judgment and not over-eulogistically. Those who could not sometimes understand Theodore Roosevelt's political associates nor reconcile his affiliations with them with abstract ideas of right and wrong, will find in these pages clear light concerning such episodes. His biographer says, in reference to these associations, that Roosevelt worked for reform, using such tools as he found at hand, not expecting to accomplish everything immediately. Concerning Roosevelt's attitude in the war with Germany, there is narrated his reply to a question put by the author as to what he would have done had he been President in May, 1915, when there appeared in several newspapers an advertisement "over the name of the German Embassy warning travelers against going through the war zone. To this query he said he would have asked Bernstorff if he officially acknowledged the advertisement. He could not have denied it. Then Roosevelt says he would have handed to him his passport and put him on the Lusitania. "This would probably have meant war, and we were horribly unprepared. But better war than submission to a humiliation which no President of this country has ever before allowed." The outstanding feature of the work is the exposition of the strenuous American character of the strenuous President. It is thoroughly interesting from the first page to the last, and should be read by every patriot.

Financial News**New Financial Corporations.**

Ark., Banks.—Bank of Banks, a new concern, capital \$10,000, surplus \$1000, is being organized. Will begin business about Jan. 1. Incorporators, A. B. Banks, Guy Stephenson, Brother Bratton and others.

Fla., Fort Meade.—Citizens' National Bank of Fort Meade is chartered; capital \$25,000. W. M. Taylor is Prest.; J. A. Newsome, V.-P.; J. T. Hancock, Cash. Will begin business about Jan. 15.

Fla., Miami.—First National Co., a new concern, capital stock \$150,000, is organized for general loan and mortgage business; E. C. Romph, Prest.; G. B. Romph, V.-P.; C. M. Terrell, Secy.; C. E. Oakes, Treas.

Fla., Tampa.—Citizens' American Bank & Trust Co., recently formed by consolidation of the Citizens' Bank & Trust Co. and the American National Bank, and which began business under the new name Nov. 22, has officers as follows: Dr. Louis A. Bize, Prest.; W. W. Trice, Isaac Maas and L. L. Buchanan, V.-Ps.; D. H. Laney, Cash.; W. W. Blount and Eugene Knight, Asst. Cashs.

Ky., Cane Valley.—Farmers' Bank of Cane Valley, capital \$15,000, is chartered. Incorporators, T. T. Tupman, J. C. Bault and H. C. Lee.

La., New Orleans.—Union Indemnity Co., capital and surplus \$1,000,000, is being organized. W. Irving Moss will be Prest.; M. M. Moss and Edward Kory, V.-Ps.; others interested including L. M. Pool, P. H. Saunders, R. S. Hecht, John E. Boudin and others.

Miss., Cleveland.—Bolivar County Bank, capital \$100,000, is incorporated. W. P. Holland and others.

Miss., Heidelberg.—Citizens' State Bank, a new concern, is chartered; capital \$10,000; will begin business Jan. 1, 1920. Incorporators, M. G. Travis, J. W. Dantzler and J. A. Lyon of Heidelberg, C. Blankenship and R. J. Burnett of Bay Springs, and J. H. Jones of Paddington.

Miss., Okolona.—Commercial Bank and Trust Co., capital \$25,000, is incorporated. Incorporators: J. S. Rowe, Walter Smith, A. L. Jagoe and others.

Mo., Kansas City.—Home Trust Co., capital \$360,000, has begun business at 1121 Walnut St. Alexander Rieger, Prest.; H. Levi Aaron and Edward Aaron, V.-Ps.; G. A. Sievers, Secy.; Treas.; Sam Wedlansky, Asst. Secy.

Mo., St. Louis.—Natural Bridge Bank, capital stock \$100,000, surplus \$10,000, is incorporated. Directors, Geo. Ehrlhardt, Adolph Dubois, Jacob Gerst, Wm. L. Heckmann, Geo. Hohmann and others. Address 4654 Florissant Ave.

N. C., Vanceboro.—Bank of Craven, capital \$60,000, paid in \$30,000, is chartered. Incorporators, T. M. Howard, N. M. Lancaster, J. B. Hellen of Vanceboro, Gertrude Howard and O. K. Howard of Norfolk.

Okl., Picher.—Bank of Picher, a new concern, capital \$50,000, is incorporated; began business Nov. 24; C. L. Pratt, Jr., Prest.; C. C. Calvert, Cashier.

Okl., Verden.—First State Bank of Verden chartered; capital \$15,000. L. D. Galloway, Sentinel, Okla.; J. A. Hyndman and E. D. Foster, both of Chickasha, Okla., Ineptrs.

Tenn., Strawberry Plains.—Bank of Strawberry Plains, capital stock \$10,000, has applied for charter. Incorporators, A. C. Parrott, J. C. Day, I. N. White, G. C. McBee and R. S. Owen, all of Strawberry Plains.

Tex., De Leon.—Guarantee State Bank of De Leon, capital stock \$60,000, has applied for charter. B. J. Pittman, Prest.; J. Doss Miller, Guy Harmon and G. W. Meadows, V.-Ps.; Evan Barker, Cash.

Tex., Fort Worth.—Commercial State Bank, capital stock \$100,000, fully paid, will open for business Jan. 2 in the Chandler Hotel Block. E. L. Etter is Prest.; R. Sere, V.-P., and B. L. Ward, Cash.

Tex., Fort Worth.—The Bankers' Trust Co., a new concern, is at 808½ Houston St. W. W.

Murrah of Dallas is Prest.; S. H. Harrison of Chicago, V.-P. and Gen. Mgr.; M. C. Brannan, Secy. and Treas. O. L. Ray, E. C. Hale and J. M. Mack, all of Fort Worth, also interested.

Tex., Forest.—Farmers and Merchants' State Bank is chartered; capital stock \$15,000.

Tex., Frisco.—Frisco State Bank, a new concern, capital \$20,000, is chartered. Began business Dec. 1. Directors, A. W. Henschel, Prest.; Fred N. Stinson, V.-P.; M. M. Henschel, Cash.; E. H. Kinsley and T. J. Crawford.

Tex., Texarkana.—Lone Star Accident & Health Insurance Co., a mutual concern, has filed charter. Incorporators, B. L. Hill, Dr. E. L. Beck, C. A. Lee, Dr. S. S. Raffaelli, T. M. Graham and W. T. Williams.

Va., Richmond.—Virginia Title Guarantee Co., Inc., maximum capital \$500,000, minimum \$50,000, is chartered. Ineptrs.: W. F. Thurston, Prest.; J. C. Byars, Secy., and William E. Morton, all of Richmond.

Va., Roanoke.—Mountain Trust and Mortgage Bank is expected to begin business soon at 34 Church Ave. S. W. R. V. Gunn, C. L. Guerrant and others interested.

W. Va., Petersburg.—Potomac Valley Bank, capital stock \$50,000, is chartered. Incorporators: John G. Harman, Dr. J. M. Teter, John A. Parks, W. C. Hatterman, Geo. W. Mallow, H. A. Alt, G. H. Whitesel, H. F. Groves and others of Petersburg and Mayesville.

New Securities.

Ala., Anniston.—(Refunding).—Sold to The Alabama Bond Co. at par and accrued interest, \$370,000 of 5½ per cent 20-year public improvement refunding bonds of the City of Anniston, dated Dec. 1, 1919; J. L. Wikle is Mayor, and W. O. Ward, Clerk.

Ala., Bessemer.—(School).—The election proposed for \$200,000 of bonds on Nov. 25 has been postponed until some time in January. Address M. J. Brooks, Prest. of Board of Education. L. L. Vann is Supt. of Schools.

Ala., Birmingham.—(School).—Sold to R. M. Grant & Co., New York, \$1,000,000 of 5 per cent 30-year bonds at a premium of \$500.

Ala., Decatur.—(Street).—Bids will be received until Dec. 29 for \$250,000 of 6 per cent 10-year city bonds. Jas. A. Nelson is Mayor. For particulars see Proposals Department.

Ala., Gadsden.—An election will be held Dec. 30 on \$250,000 of 5 per cent 30-year city bonds; date changed from Dec. 23 because of error; W. P. Johnson is Mayor.

Ala., Montgomery.—(Refunding).—The State has sold \$281,000 of the \$54,000 of 4½ per cent bonds offered Nov. 25, prices being from par to 104.

Ark., Blytheville.—(Sewer).—Sold to Bowman, Cost & Co., St. Louis, at 100.175, \$25,000 of 6 per cent 1921-1940 bonds of Blytheville Sewer Improvement Dist. No. 1, Mississippi County. Purchaser pays attorney's fees, trustees' charges and provides blank bonds.

Ark., Forrest City.—(Road).—Election reported called for Feb. 1, 1920, on \$25,000 St. Francis County bonds. Address County Comrs.

Ark., Morrillton.—\$210,000 of 5½ per cent 20-year serial \$1000 denomination bonds of Road Improvement Dist. No. 1 of Conway County have been purchased by the Mortgage Trust Co., St. Louis; dated Aug. 1, 1919.

Fla., Bradenton.—(Road).—Sold to First National Bank of Bradenton, \$125,000 of 6 per cent 10-30-year \$1000 denomination Manatee County bonds at a premium of \$350 and accrued interest. Wm. M. Taylor is Clerk of the Circuit Court.

Fla., Bonifay.—(Road).—Sold to A. C. Drummond, Bonifay, at 96 and accrued interest. Nov. 29, \$70,000 of 6 per cent serial 1922-1930 \$500 denomination bonds voted Oct. 14 and dated Nov. 3, of Special Road and Bridge District No. 4, Holmes County. R. W. Cudlitz is Clerk Circuit Court.

Fla., Dade City.—(Road).—\$750,000 of Pasco county road bonds voted Nov. 25. Date for bids not yet decided. Address County Commr.

Fla., De Funiak Springs.—(Sewer, Street, etc.).—Bids will be received, it is reported, until 8 P. M. Dec. 23 for \$65,000 of 6 per cent city bonds. Duncan Gillis is City Clerk.

Fla., Fort Myers.—(Street).—All bids were rejected for the \$70,000 of 6 per cent \$200 denomination city bonds offered Dec. 2. Jno. W. Owens is City Clerk.

Fla., Ocala.—(Road).—The proposed issue of \$1,500,000 of 5 per cent 10-20-year \$1000 denomination bonds of Marion County were defeated at the election Dec. 2; a district bond election is contemplated; P. H. Nugent is Clerk.

Fla., Pass-a-Grille.—(Improvement).—Bids will be received until 7:30 P. M. Dec. 15 for \$14,000 of 6 per cent \$500 denomination city bonds, dated Dec. 1. Address J. J. Duffy, Mayor.

Fla., Pensacola.—(School).—Reported sold to the Hanchett Bond Co. of Chicago \$160,000 of 5½ per cent serial 1920-1949 \$1000 denominations warrants of Escambia County.

Fla., Pensacola.—(Road and Bridge).—Bids will be received until 9 A. M. Jan. 5 for \$12,000 (part of \$160,000 issue) of 6 per cent \$1000 denomination serial warrants of Escambia County. Address J. Geo. White, Chmn. County Comms. Jas. Macgibbon is Clerk.

Fla., Pensacola.—(Improvement).—\$90,000 of city bonds have been authorized by the City Comms.

Fla., Sanford.—(Drainage).—\$26,000 of 6 per cent bonds for Jessup Drainage Dist., Seminole County, are being offered for sale by the County Comms.

Fla., St. Petersburg.—(General Improvement).—Bids will be received until 7:30 P. M. Dec. 15 for \$100,000 of 5½ per cent \$1000 denomination 30-year city bonds, dated Oct. 1, 1919. Address G. B. Shepard, Director of Finance.

Ga., Columbus.—(Paving, Hospital, Bridge, Fire).—Sold to J. H. Hillsman & Co., Atlanta, at a premium of \$2021.85, \$166,000 of 5 per cent serial bonds as follows: \$80,000 paving, \$36,000 hospital, \$30,000 bridge and wharf, \$20,000 fire. R. E. Dismukes is Chmn. Finance Com.

Ga., Madison.—(Road).—Date to receive bids was changed from Nov. 27 to Dec. 4 on the \$325,000 of 5 per cent serial 1929-1948 bonds of Morgan County, dated July 1, 1919. W. E. Kimbrough is Chmn. County Comms.

Ga., Preston.—(School).—Voted Nov. 5 \$15,000 of 6 per cent bonds of Preston Consolidated School Dist., Webster County. Date for bids not yet set. Address School Board.

Ky., Lexington.—(School).—Board of Education has authorized the sale of \$400,000 of 5 per cent \$1000 denomination school bonds dated Feb. 1, 1920, to be sold at the same time as the city bonds; J. Harrison Simrall is Secy. of the Board.

Ky., Madisonville.—(Road).—\$500,000 of Hopkins County bonds were voted recently. Address County Comms.

Ky., Owensboro.—(City).—Bids reported asked until Dec. 8 for \$28,500 of 5 per cent 6-10 year optional \$500 denomination bonds. Address John C. Calhoun, Mayor.

Ky., Paris.—(School).—Election called for Dec. 27 on \$35,000 school bonds. Address City Council.

(Continued on Page 146)

GARFORD



-for
**Low Cost
 Ton-Mile**

The Garford Motor Truck Co., Lima, Ohio

TRUCKS

[December 11, 1919.]

La., Colfax—(Road and Bridge).—\$600,000 of 40-year bonds of Road Dist. No. 9, Grant Parish, voted Nov. 25. Address Police Jury.

La., Jena—(Road).—\$500,000 of 5 per cent serial 1920-1944 \$1000 denomination bonds of La Salle Parish, dated Oct. 1, 1919, are being offered by the National City Co. of New York.

La., Kaplan — (Water and Light Plant).—Bids will be received until 8 P. M. Dec. 16 for \$40,000 of 5 per cent 20-year serial \$500 denomination town bonds, dated Dec. 1. Eugene Eleazar is Mayor and C. F. Clavery is Clk.

La., Lake Arthur—(Water-works).—\$50,000 of bonds were voted recently. Address The Mayor.

La., Lake Charles—(School Auditorium).—Election called for Dec. 9 for \$48,000 of 5 per cent \$500 denomination 6-year School Dist. No. 17, Calcasieu Parish bonds, dated Jan. 1, 1920, when bids will be received. Address F. K. White.

La., Lake Charles—(Road).—\$225,000 bonds will be offered for sale Jan. 6 as follows: Calcasieu Parish, \$125,000; Rond Dist. No. 1 of Calcasieu Parish, \$100,000. H. G. Chalkley is Prest. Police Jury.

La., Monroe — (Road).—Special dispatch to Manufacturers Record says Road Dist. No. 1, comprising all of Ouachita Parish, voted Dec. 2 a bond issue of \$1,600,000, with less than 2 per cent of votes against it. Majority in favor 78%. W. A. Oakley is Clk. Police Jury.

La., New Iberia—(School).—Bids will be received until Jan. 20 for \$200,000 of 5 per cent bonds of Iberia Parish; L. R. Tilly is Supt. of Schools.

La., New Orleans—(Paving).—Bids will be received until 11 A. M. Dec. 29 for \$1,600,000 of 4½ per cent semi-annual 2-6½-year average certificates. Address A. G. Ricks, Commr. Public Finances.

Md., Elkton—(Sewer).—The Town Council has decided to issue \$20,000 of bonds. Address The Mayor.

Md., Oakland—(School).—Details concerning the contemplated issue by the Garrett County Board of Education of \$200,000 of bonds have not yet been worked out, and perhaps will not be before April, 1920. F. E. Rathbun is Secy.

Miss., Brandon — (Road).—Bids reported asked until Dec. 1 for \$70,000 of 6 per cent 20-year bonds of Rankin County. Address County Commr.

Miss., De Kalb—(High School).—The proposed issue of \$50,000 of Kemper County high-school bonds was defeated at the election Nov. 28. T. W. Aust is Prest. Board of Supvrs.

Miss., Greenville—(Street, Sewer, City Hall, Refunding).—Sold to First National Bank of Greenville at par and premium of \$6625. \$290,000 of 5½ per cent serial 1921-1940 \$500 denomination city bonds, as follows: \$100,000 street paving, \$75,000 sewerage, \$50,000 city hall and \$65,000 refunding. Guy Drew is City Clerk.

Miss., Lucedale—(School).—Contemplated to issue \$15,000 of George County bonds. Address School Board.

Miss., Monticello—(Road).—\$70,000 bond issue of Dist. No. 5, Lawrence County, has been ordered. Address County Commr.

Miss., Pascagoula—(Road).—Bids will be received until 2 P. M. Jan. 6 for \$30,000 of not to exceed of 6 per cent serial \$500 denomination bonds voted Nov. 29 as follows: \$15,000 of Supervisors' District No. 2 and \$15,000 of Supervisors' District No. 3, dated Dec. 1. Address Fred Taylor, Clerk Board of Supvrs.

Miss., Rolling Fork—(Road).—\$650,000 bond issue of Sharkey County is planned. Address County Supvrs.

Miss., Senatobia—(Sewer).—Voted Nov. 29,

\$15,000 of bonds, which will be sold immediately. Address City Clerk.

Mo., Bloomfield—(Road).—The proposed issue of \$100,000 of 5 per cent \$1000 denomination bonds of Pike Township, Stoddard County, were defeated at the election Nov. 25. Another vote may be taken later. Address County Commr.

Mo., Caruthersville—(Water).—Election reported held Dec. 2 on \$50,000 of bonds. Address The Mayor.

Mo., Springfield—(Road).—An election is proposed for \$2,000,000 of Center Township, Greene County, bonds. Address County Commr.

N. C., Asheville—(Road and Bridge).—Bids will be received until noon Dec. 22 for \$450,000 of 5 or 5½ per cent 2-24-year bonds of Buncombe County, denomination \$1000. Address B. A. Patton, Chrmn. County Commr.

N. C., Asheville—(School).—An election will be held for \$6000 of bonds in Reems Creek Township, Buncombe County. Address County Commr.

N. C., Boone—(Road).—Bids will be received until 11 A. M. Jan. 6 for \$50,000 of 5-30-year Watauga County bonds. Address W. R. Gragg, Clerk County Commr. For particulars see Proposals Department.

N. C., Greensboro—(Courthouse).—Bids will be received until Jan. 15 for \$250,000 of 5 per cent serial 25-year Guilford County bonds. Address County Commr.

N. C., Greensboro — (Street).—Pending receipt of funds from the recent sale of \$275,000 of city bonds the Mayor has been authorized to borrow \$40,000 on the city's demand vote. E. J. Stafford is Mayor.

N. C., Lexington—(School).—Voted Nov. 25, \$75,000 school bonds. Address E. B. Craven, Chrmn. of Board of School Commr.

N. C., Lillington—(Road).—Sold Nov. 28 to Prudden & Co., Toledo, O., at a premium of \$1460 and accrued interest \$30,000 of 6 per cent 20-30-year serial \$1000 denomination bonds of Duke Township, Harnett County, dated Nov. 1.

N. C., Marion—(Road).—Sold to A. T. Bell & Co., Toledo, O., \$100,000 of 5½ per cent 1919-1949, \$1000 denomination bonds of McDowell County at \$1031.13 per \$1000 bond; dated July 1, 1919; offered Dec. 1.

N. C., Mohane — (Water-works, Sewer, School).—\$100,000 of town bonds for water-works, \$60,000 for sewers and \$25,000 for school are to be issued. Address W. S. Crawford, Mayor.

N. C., Monroe—(Road and Bridge).—Sold to A. T. Bell & Co., Toledo, O., at \$101,131.30 the \$100,000 (part of \$500,000 issue) of 5½ per cent serial \$1000 denomination bonds of Union County, dated Dec. 1 and offered on that date.

N. C., Newton—(Street, Water, Sewer).—Sold to Tucker-Robison & Co., Toledo, Ohio, \$73,000 (part of \$121,000 issue) of 5½ per cent serial 1921-1936 \$1000 denomination bonds, dated Sept. 1 and offered Nov. 4, at par plus \$51; D. G. Galther is Town Clerk.

N. C., Tarboro—(Street, Water and Sewer).—Bids will be received until 2 P. M. Dec. 18 for \$300,000 of not over 6 per cent 8½-year average street bonds, and \$50,000 of 21-year average water and sewer bonds. Address J. H. Jacobs, Town Clk.

N. C., Winton—(School).—Bids will be received. It is reported, until 2 P. M. Dec. 26 for \$25,000 of 30-year \$500 denomination bonds of Winton School Dist., Hertford County. Address J. D. Beale, Secy.

Okl., Ardmore—(School).—Special dispatch to Manufacturers Record says \$350,000 of bonds were voted Nov. 29 to be sold immediately. Address School Board.

Okl., Ardmore—(School).—Bids asked un-

til Dec. 5 for \$200,000 (part of \$350,000 issue) of 5 per cent 25-year \$1000 denomination bonds voted Nov. 29 and dated Dec. 1, 1919. P. C. Dings is Prest. and C. W. Richards, Clerk School Board.

Okl., Medford — (Water, Sewer, Engine Equipment).—Election called for Dec. 11 on \$175,000 of bonds as follows: \$100,000 water, \$50,000 sewerage, \$25,000 engine equipment. Bonds accepted by Calvert Bonding Co., Oklahoma City. Address The Mayor.

Okl., Nowata—(Light and Power, Water).—Election reported on Dec. 2 for 6 per cent 10-25-year optional bonds as follows: \$143,40 electric-light and power plant; \$51,000 water works improvements. Address The Mayor.

Okl., Oklahoma City — (Funding, Public Building).—Bids asked until 2 P. M. Dec. 9 for \$207,500 of 4½ per cent \$1000 denomination serial State funding bonds; also \$75,000 of 5 per cent \$500 denomination public building warrants and \$71,000 of public building warrants of the same rate and denomination, all of the State of Oklahoma, being series 9 and 10, respectively. Address A. S. J. Shaw, Secy. Commr., of the Land Office.

Okl., Oklahoma City — (School).—Election called for Dec. 9 on \$82,000 of 5 per cent \$1000 denomination City School Dist. bonds. G. O. Woodworth is Prest. of the School Board. J. G. Stearley is Secy., 400 N. Walnut St.

Okl., Tahlequah—(Electric-light Plant).—Reported sold \$100,000 bonds. Address The Mayor.

S. C., Andrews—(Electric Light, Funding, \$15,000 electric light and \$15,000 funding bonds, all of the town of Andrews, have been bought by the Carolina Bond & Mortgage Co. of Columbia, S. C.

S. C., Gaffney—(School).—Bids were asked until noon, Dec. 5, for \$3800 of 6 per cent 30-year bonds of School District No. 15, Cherokee County; J. F. Martin, J. W. Price and Jas. A. Scruggs are Trustees School District No. 15.

S. C., Greenville—(School).—Sold to the Security Trust Co., Spartanburg, S. C., at 100.312 and interest, \$25,000 of 5 per cent 30-year bonds of Greer School Dist., Greenville County.

Tenn., Dover—(Road).—Reported voted Nov. 20 \$200,000 of Stewart County bonds. Address County Commr.

Tenn., Morristown—(Paving).—Sold to L. B. Tigrett & Co., Jackson, Tenn., \$100,000 of 5 per cent 20-year bonds and \$100,000 of 6 per cent assessment 1-10-year bonds for paving at par and accrued interest, less \$6450.

Tenn., Pulaski—(Road).—Reported that bids will be received until noon Dec. 27 for \$150,000 of 6 per cent 1-15-year serial bonds of Giles County. Address R. H. Harris, Clk. County Court.

Tex., Beeville — (Road).—\$600,000 of Bee County bonds recently voted. Address County Commr.

Tex., Cameron—(Road).—\$150,000 of bonds of Milam County Road District No. 29 were voted recently. Address County Commr.

Tex., Dallas—(Levee).—W. R. Compton & Co. and First National Bank, both of St. Louis, are offering \$228,000 of 6 per cent serial bonds, 1921-1948, dated Apr. 10, 1919, of the Eureka Improvement Dist. No. 5, Dallas County.

Tex., Galveston—(Causeway).—\$100,000 Galveston County 5 per cent 20-40-year \$1000 denomination bonds offered Dec. 1 were not sold. Only one bid received at par. Rejected on account of commission asked. John M. Murch is County Auditor.

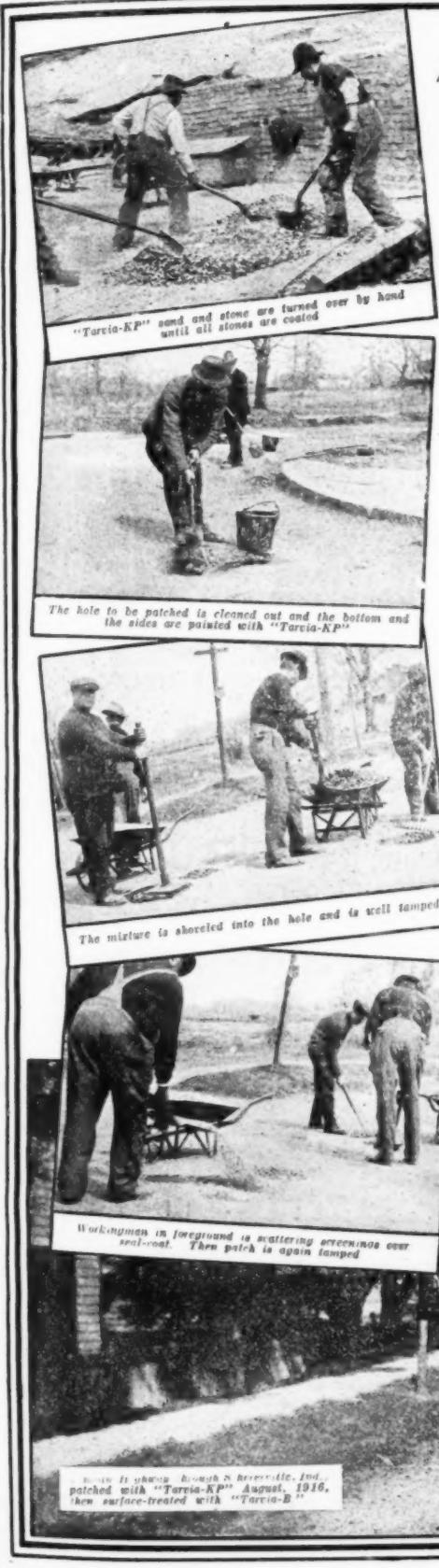
Tex., Gatesville—(Road).—Reported that an election on \$1,000,000 bonds is contemplated in Coryell County. Address County Commr.

* * * (Continued on Page 150)

December 11, 1919.]

MANUFACTURERS RECORD.

147



Tarvia-KP

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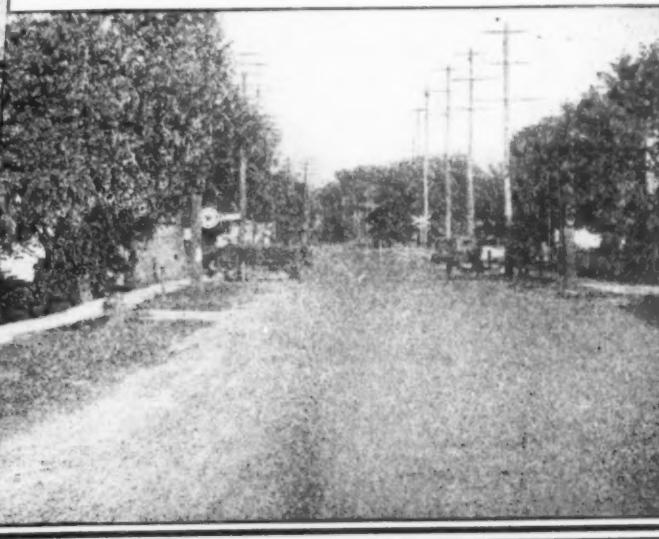
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Here are reasons why the fine, fresh pork tenderloins and pork chops, or savory ham, or crinkly bacon, which you enjoy for breakfast, cost much more per pound than the market quotation on live hogs which you read in the newspaper:

An average hog weighs 220 pounds.

Of this, only 70 per cent (154 pounds) is meat and lard.

So, when we pay 15¢ a pound for live hogs, we are really paying more than 21¢ a pound for the meat which we will get from these animals, even after taking into account the value of the by-products.

But people show a preference for only one-third of the whole—the pork chops, fancy bacon, and choice cuts from juicy hams.

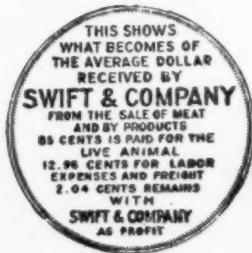
This means that when we are selling Premium bacon at 43½¢ per pound wholesale and Premium hams at 30¢, there are other parts for which we get as low as 6¢ or 8¢ per pound. The net result is an average profit to us of less than 1¢ a pound.

The choice cuts are higher because of a demand for them.

Another thing: Only 35 pounds of the entire hog—or about $\frac{1}{6}$ th—is usually marketed at once. The rest must be pickled, cured, or smoked. This takes months and adds to the costs which must be met.

Swift & Company, U. S. A.

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In practically all of the Southern and Western states it is now a matter of history that Patriot Trucks do perform to a high degree of satisfaction under abnormally difficult conditions, and that, in any comparison with other high grade trucks of America, they rank among the leaders.

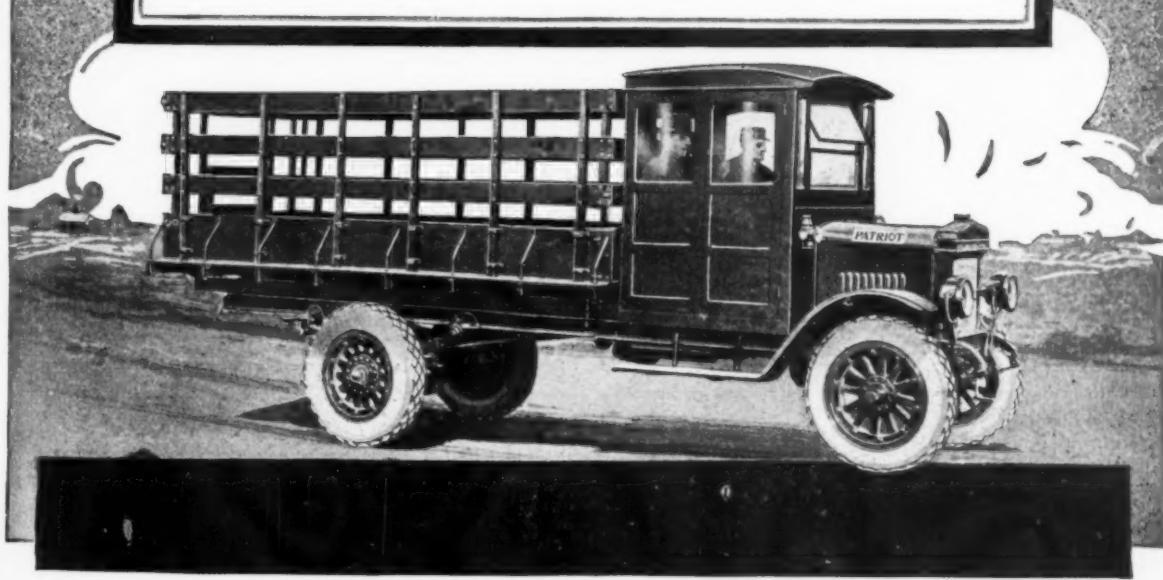
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1500 to 2000 lbs.

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3000 to 5000 lbs.

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5000 to 7500 lbs.



Tex., Jacksboro—(Road).—Election reported called for Dec. 6 on \$600,000 of Jack County bonds. Address County Commiss.

Tex., Lubbock—(Paving, Water-works).—\$110,000 of bonds were voted Dec. 1 as follows: \$100,000 paving and \$10,000 water-works. Address The Mayor.

Tex., Marlin—(Fire Department).—Bids asked until 9 A. M. Dec. 10 for 5 per cent 10-40 year \$500 denomination bonds as follows: \$14,000 fire station; \$26,000 fire equipment. Address City Secy.

Tex., Oakville—(Road).—\$12,000 of Live Oak County bonds were voted at a special election Nov. 25. Address County Commiss.

Tex., Pearsall—(Street).—\$30,000 of city bonds voted Nov. 25. Address The Mayor.

Tex., Wichita Falls—(Road).—\$1,500,000 of 5 per cent \$1000 denomination 10-30-year serial Wichita County bonds dated Oct. 1 and offered Nov. 21 were not sold. All bids were rejected on account of being below par; the best bid was 97½ and accrued interest. Bonds will be sold when par and accrued interest are received for them. Address W. W. Murphy, County Auditor.

Va., Bristol—(Street).—Bids will be received until 8 P. M. Jan. 15 for \$100,000 of not exceeding 5½ per cent \$500 denomination 20-year (1924-1944) city bonds, dated Dec. 1. B. E.

Ballard is City Clk. Bids requested for lower rates of interest.

Va., Norton—(Street).—Reported sold to John Nuveen & Co., Chicago, \$60,000 of 5 per cent 25-year bonds offered Nov. 24 and dated Dec. 10.

Va., Orange—(Water).—Bids will be received until noon, Dec. 18, for \$60,000 (or any part thereof) of 6 per cent 10-30-year town bonds. Address A. J. Harlow, Mayor. For particulars see Proposals Department.

W. Va., Logan—(Road).—Voted Nov. 29 \$1,000,000 of Logan County bonds. Address W. F. Farley, Holden, W. Va.

W. Va., Moorefield—(Railroad Ald.).—Special election will be held in Hardy County Dec. 20 for \$25,000 of bonds, as follows: \$15,000 for South Fork Dist., and \$10,000 Moorefield Dist., to aid construction of narrow-gauge railroad to Peru, 20 mi. south of Moorefield. Address Arthur Cunningham, Prest. County Court.

W. Va., New Cumberland—(Road).—Bids will be received until 11 A. M. Dec. 8 for \$100,000 of 5 per cent \$1000 denomination serial 1923-1944 Hancock County bonds. Hooper W. Allison is Prest. of County Court.

W. Va., Warwood—(Paving, Sewer).—Sold to Howard Hazlett & Son, Wheeling, W. Va., at 102.06, \$150,000 of 6 per cent serial 1919-1929 \$50 denomination city bonds dated Nov. 1 and offered Dec. 2.

Financial Notes.

Bank of Charleston, Charleston, S. C., will increase its capital stock from \$500,000 to \$1,000,000.

Bank of Sussex and Surry, Wakefield, Va., will increase its capital stock from \$50,000 to \$100,000.

Norman Building and Loan Association of Norman, Okla., has increased capital stock from \$750,000 to \$1,250,000.

Savings Bank of Norfolk, Va., will increase its capital stock from \$50,000 to \$200,000 January 1.

Farmers and Merchants' Bank of Florence, S. C., proposes to increase its capital stock from \$25,000 to \$250,000.

Norwood National Bank, Greenville, S. C., has voted to increase its capital stock from \$250,000 to \$500,000.

A report from St. Louis says that the controlling interest held in the American Trust Co. by the Title Guaranty Trust Co. has been bought by a syndicate represented by Wm. R. Compton, Thomas N. Dysart, Henry H. Hopkins and Wm. C. Bitting, Jr., of St. Louis, and Clarkson Potter and R. P. Compton of New York. Wm. R. Compton was elected president of the American Trust Co., succeeding J. C. Van Riper, resigned; the latter, however, continuing as president of the Title Guaranty Trust Co.

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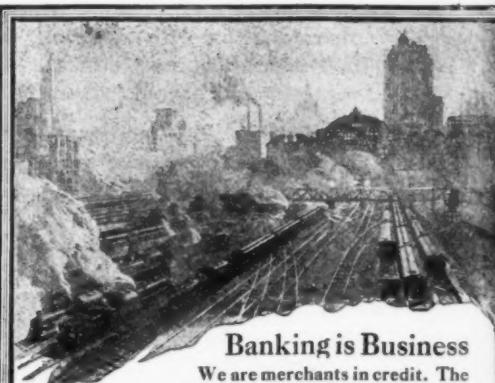
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